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ABSTRACT

These six newsletter issues include special features on: (1) the spectrum of giftedness; (2) technology; (3) recognizing gifted young children; (4) secondary gifted students; (5) exploring creativity; and (6) mutual education. Examples of articles are: "Six Steps to Academic Damage Control: Beginning the Climb toward Higher Standards" (Linda Mucha); "Breaking the Barriers: An Odyssey for Change" (Julie Gonzales); "Software Challenges for the Gifted" (Gregory C. Pattridge); "Surfing the Net" (Sandra Berger); "Portfolios for Young Children" (Bertie Kingore); "Early Gifts, Early School Recognition" (Joan Franklin Smutny); "Creating Positive Learning Environments" (Beverly D. Shaklee); "Talent Development as the Alternative in High School Programs" (John F. Feldhusen); "Adolescents and the Arts: Talent Development through the National Standards" (Ann Robinson and Leslie Dudley Corbell); "Creativity as Passionate Commitment" (Jerry Flack); "New Dimensions in Creativity" (Mark A. Runco); "Creative Problem Solving" (Donald J. Treffinger); "Paradoxes of Creativity" (LeoNora M. Cohen); and "Being a Writer" (Tiffany King). Issues also typically include columns on teaching tactics, parenting, Internet resources, and other resources. (DB)

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UNDERSTANDING OUR GIFTED®

Dedicated to helping gifted children reach their full potential

September/October, 1994

Volume 7, Issue 1

Six Steps to Academic Damage Control

Beginning the Climb Toward Higher Standards

Linda Mucha

Advanced students are often restricted in academic growth by "dumbed down" texts and lock step, textbook curriculum (Chall & Conrad, 1991; Farr & Tully, 1985). By controlling the damage resulting from this system, educators can block the trend toward mediocrity. Academic damage control can take place through curriculum compacting, which is defined as:

> *the process of identifying learning objectives, pretesting students for prior mastery of these objectives, and eliminating needless teaching or practice if mastery can be documented. The time saved through this process may be used to provide either acceleration or enrichment for students.* (Reis, Burns, & Renzulli, 1992, p.10)

The how-to's of curriculum compacting are simple. Pretest the student on the material to be taught. Set a mastery level that is acceptable for allowing the student to move ahead...

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FOCUS ON:

SPECTRUM OF GIFTEDNESS

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Breaking the Barriers: An Odyssey For Change

Julie Gonzales

Fresh haircuts, shiny lunch bags, new sets of markers, different teachers, unfamiliar schedules, perhaps a new school-all mark the dawn of a new academic year. A renewed sense of direction brings fresh expectations for parents, students and teachers. The day and year begins. For our family there is energy and excitement about what lies ahead.

Twenty-year-old Kim heads into her junior year at a small university in the northwest. She is over the ruminations of choosing a major. It will be English literature with a minor in psychology. It makes sense. She has been reading voraciously since age three. As much as she will always love the performing and visual arts, areas in which she easily excels, she has come to accept her love for books-and the reading, writing and analysis that goes with them-as her passion. Her intuitive strength can be fostered through the study of the psyche....as long as rats and stats don't get in the way! Kim is fluent in French and is now studying Italian in preparation for a spring semester in

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UNDERSTANDING OUR GIFTED

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FROM THE EDITOR

Our seventh year of publication begins, and we're proud of our role as a major resource for those who live and work with gifted children. We're honored to be associated with the talented individuals who write for and lend support to the journal. Watch for continuing expansion of the Editorial Advisory Board and regular contributors to *Understanding Our Gifted.*

Our next seven years will carry us into a new century and a time of technological growth beyond our imagination. What an exciting and hopeful time for education and for gifted students who are growing up in this wondrous era!

At *Understanding Our Gifted* we are involved in an expansion plan to make a good product even better, and to serve your needs more directly and immediately. We reaffirm our commitment to helping gifted children reach full potential, providing support for parents and educators as they strive for common goals, and emphasizing the affective area of the inner child. Our growth reflects your feedback....so continue to communicate with us via letter, phone and FAX.

This issue focuses on topics across the spectrum of giftedness, and the lead articles highlight our dedication to both parents and teachers. Julie Gonzales shares her personal joys, challenges and techniques as a parent and an advocate extraordinaire; Linda Mucha describes a plan for academic growth and a proven method of successfully modifying curriculum for gifted students.

Our new columnist Gloria Frender establishes the "why" component for teaching study skills to gifted students; in forthcoming columns she will add the "how" and "what" as she describes specific and practical *learning to learn* strategies. Joan Smutny's special feature on gifted girls, as well as a variety of topics addressed by our columnists, completes a potpourri of giftedness.

Dorothy Knopper

At times she quietly
Creeps away,
A bit at a time,
A little each day.
Sometimes you know,
When you wake at dawn,
She was here but now
She's suddenly gone.

A reason for being,
(Ethereal muse)
Who challenges norms,
Who changes your views.
You strain, and reach,
And hold, and find
She slips through your fingers
And out of your mind.

But deep in the shadow
And hidden in dreams,
If you've loved her and paid
Her ransom, it seems
This time she may,
This time she might,
Softly approach
And gently alight,
Kiss your brow
And allow you to see
Through eyes of
Creativity.

Becky Whittenburg

Becky Whittenburg, TAG specialist in the Nederland, Colorado, schools, is a parent of gifted children, as well as a pianist, composer and "sometimes poet."

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Mixed Messages for Gifted Girls

Joan Franklin Smutny

Two sisters shared their thoughts about recent movies and the scarcity of good roles for women: *Movies always make men the brave ones, but women are really brave, too. They just don't have big muscles.*

The 6 and 8 year olds had already recognized three important realities:

- First, women-regardless of muscle tone-can, indeed, be very courageous.
- Second, the popular media's portrayal of women is inadequate.
- Third, girls can (and must) find themselves; they need not accept limited expectations in any setting-movies, school, work or life in general.

For gifted girls today, the opportunities to develop their potential for a lifetime of self-fulfillment and success are nearly unlimited. However, so are the challenges. Gender stereotypes occur in television, movies and books, as well as the toy and fashion industries. More subtle influences occur at home, school, and in the community.

Inconsistencies confront gifted girls at every turn, educating them by experience. Even school can be a source of mixed messages. Boys appear to receive preferential treatment as teachers call on them more often, forgive their outbursts more readily, and offer them more detailed and constructive criticism. Textbooks contain stereotypical treatment of women in content and tone. Despite comparable mathmatical strengths at early ages, fewer girls than boys pursue mathmatics as they continue through school and into careers.

Bright girls face challenges to achievement from their own peer group. Preteens and early adolescent girls are often hard on one another, and on themselves. They evaluate, compare and compete with one another in a way that is different from boys. Boys are competitive but generally not as evaluative.

If a girl is academically talented, attractive and has many friends, she may be considered "too good" and generate resentment among other girls, especially if she takes on leadership roles. Gifted girls are sensitive, and when they feel negative vibes from others who are jealous of them, they may "shut down." Because they are hungry for acceptance, they may consciously decide not to shine.

Parents should encourage daughters to share frustrations and negative feelings. Listen with an open mind and help them figure out how to approach problems. On the other hand, it's not helpful to offer pat advice or to let problems ride. Gifted girls may quickly become intimidated when issues are left hanging and conclude that no one is capable of untangling knotty situations. It's better to involve daughters in problem solving approaches for productive courses of action, so they are prepared when similar challenges arise again.

Although mixed messages for gifted girls abound in many aspects of their lives, mothers themselves can provide consistent role models for career possibilities, lifestyles and values. Girls should also have the opportunity to talk to other women who have "made it" in specific occupations, overcoming obstacles of gender stereotyping. Girls can ask questions such as: *Why do you like your work? Is your career satisfying? Is it possible to combine family and career? Can I have a career without children or be a homemaker without a career? Should I contribute to society or just to myself?*

Biographies of successful, self-fulfilled women offer valuable life perspectives to gifted girls. Positive self-image expressed in such reading can inspire and encourage aspirations.

In my summer and weekend programs, I have observed hundreds of gifted girls as they try out new ideas, experience a variety of hands-on activities in many subject areas, ask thoughtful questions about future prospects and life styles, and explore problem solving approaches to new

(Continued on page 15)

Shirley W. Schiever

Instructional Perspectives

Problem Solving in the Curriculum

One of the most positive educational developments in recent years is the movement toward problem-based curriculum. The trend started with mathematics, but it has expanded to include other disciplines, as well as inter-disciplinary curricula. As more people develop problem-based curricula, a systematic way to examine and classify problems is increasingly useful. Educators and parents of the gifted need to be able to determine how appropriate given problems are for gifted students. I suggest the following to assist in such determination.

Getzels (1964) makes a distinction between a *presented problem situation* and a *discovered problem situation*. A presented problem is defined and has a known method of solution and an accepted solution. In a discovered problem situation, the problem is not defined and has no known method of solution nor solution. Based on this concept, Getzels and Csikszentmihalyi (1967) developed a conceptual distinction between types of problems. Two ends of a continuum can be identified based on these distinctions, and Getzels and Csikszentmihalyi defined three problem types within the continuum. Further work by Maker (1986) and Schiever (1990) produced definitions of five problem types:

Type I. The problem and the method of solution are known to the problem presenter and the problem solver, but the solution is known only to the problem presenter.
Type II. The problem is known by the presenter and the solver, but the method of solution and the solution are known only to the presenter.
Type III. The problem is known to the presenter and the solver. The presenter knows that a range of methods may be used to solve the problem and that a range of acceptable solutions exists.
Type IV. The problem is known to the presenter and the solver, but the method(s) of solution and solution(s) are unknown to both presenter and solver.
Type V. The problem is unknown or unidentified—it is a problem situation—and the method(s) of solution and solution(s) are unknown to presenter and solver.

Traditional curriculum has consisted primarily of problem Types I (solving math problems according to an algorithm) and II (answering factual questions at the end of a textbook chapter). Teachers who pose defined but open-ended problems or tasks are providing Type III problems; students who participate in *Odyssey of the Mind* are wrestling with Type IV problems; and the *Future Problem Solving Bowl* presents Type V problem situations. Problem Types I and II depend primarily on remembering factual information or algorithmic steps. Type III requires flexible and creative thought processes, and Types IV and V require processing and synthesizing abstract and complex concepts.

Even a cursory examination of the problem types indicates that all curricula should include problem Types III through V. As with many sound educational ideas, this inclusion is critical for gifted students. Characteristics determine learning need; learning needs should drive curriculum. By definition, intellectually gifted children need to be given constant opportunities to process information of substance within complex and abstract situations.

At the beginning of this column I stated that the trend toward problem-solving curriculum was positive, which I firmly believe to be true. My hope is that, given

(Continued on page 6)

Breaking Barriers

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Milan. There is joy in her life; there is life in her learning.

Brian has just turned 16. Music is his domain. His improvisational skills on the keyboard are developing and becoming recognized. His singing voice is strong and accurate. He can jump from a solo ballad in Camelot to a scat routine with his jazz choir. Brian is fleet on his feet on the soccer field both as a player and referee. He has an intuitive sense of fairness and keeps a sharp eye on the game--definite strengths when faced with difficult situations involving arguing adults and cranky kids. He has become an advocate for drug and alcohol prevention among high school youth, confidently making his stand through panel presentations and leadership forums with the Youth Advisory Board. His activities have awarded him peer respect and adult admiration.

Katy, at 12, follows yet another path. Her creative nature finds satisfying moments in batik class, writing a journal piece, or with her brother and neighbors designing a musical production, costumes and all. Identifying and collecting butterflies has become a new venture for Katy; she has been fortunate in having the opportunity to take summer classes from a Cornell University student who is a recognized lepidopterist. Katy's most remarkable gift is her ability to compose music on the piano, and she has created 40 pieces, which are beautiful, complex and spirited. She studies with a university professor/composer, and, on the side, she hauls "Rochester," her beloved cello, to orchestra class at middle school.

Michael, now 9, hit the ground running from the very beginning. He has an excessive store of energy and loves to walk, talk, and participate in sports: soccer, football, baseball and basketball. He plays a mean game of ping-pong and is already threatening ences. Joining with other parents

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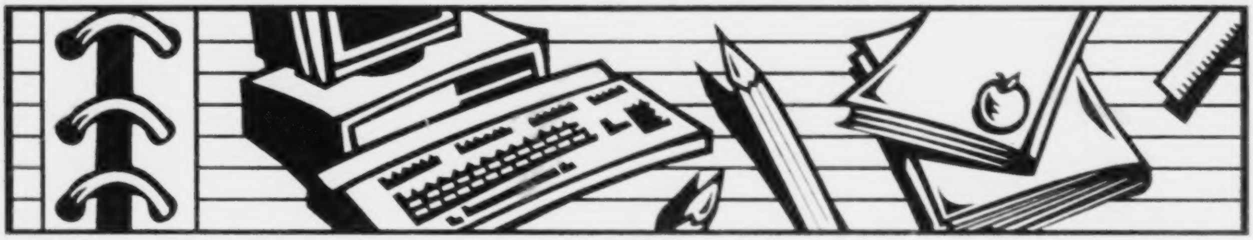

Problem Solving in the Curriculum

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the idea of a continuum or problem types and a clear way in which to identify problem-solving tasks, educators may offer more of what all children need to learn and more of what is critical for gifted students. Parents can use the problem types as a way to examine what is being offered their children, and educators can use them as a way to ensure sound and stimulating curriculum. Certainly nothing could be more positive than this.

REFERENCES

Getzels, J. W. (1964). Creative thinking, problem solving, and instruction. In E.R. Hilgard (Ed.), *Theories of learning and instruction* (NSSE 66th Yearbook, pp. 240-267). Chicago: University of Chicago Press.

Getzels, J.W., & Csikszentmihalyi, M. (1967). Scientific creativity. *Scientific Journal*, 3(9), 80-84.

Maker, C. J. (1986). *Frames of discovery: A process approach to identifying talent in special populations.* (Unpublished paper available from author, Division of Special Education and Rehabilitation, University of Arizona, Tucson, AZ 85721.)

Schiever, S.W. (1990). *A comprehensive approach to teaching thinking.* Needham Heights, MA: Allyn & Bacon.

Shirley W. Schiever is a curriculum specialist at the Fine Arts Magnet School in Tucson, Arizona, and the author of ***A Comprehensive Approach to Teaching Thinking.***

Gloria Frender

Learning to Learn

Why Study Skills for Gifted Students?

Good grades always reflect acquisition of knowledge and the ability to learn.
Gifted students can 'get it' on their own.

Perhaps you read the first sentence above and questioned its validity. If so, the second sentence undoubtedly raised your blood pressure. Of course, both statements are false!

In fact, far too many gifted students don't know how to learn or apply appropriate study skills. They are often very much at risk when it comes to using successful learning strategies. As a teacher, I have often been asked by parents (principals, too), "Why does a bright kid, whose grades are okay, have to learn study skills?" **Why** do gifted students need to know how to learn? I refer to the following analogy.

Learning how to learn—applying successful techniques—is like mountain climbing. Most climbers work hard practicing, acquiring and refining skills by climbing higher and more challenging hills. They learn by repeated experiences, adding to the store of essential equipment in their backpacks. By the time these climbers tackle big mountains, they most often have the skills, background experiences and tools to achieve successful ascents.

Many gifted students ascend the same hills and even small mountains with ease. However, they forego basic climbing skills, gathering few tools because they don't feel the need for them. When the big mountain finally looms before them, they often cannot begin to climb, much less scale the peak. They are lost. These gifted students have few experiences to draw from because all previous encounters have been effortlessly met and naturally accomplished with little, if any, planning or skill. For many, the big mountain appears overwhelming and the climb hopeless. For the first time, they doubt their abilities and intelligence. They wonder why they can't simply tackle this slope like all the others they have so easily ascended. For the first time, there is a real challenge. Some immediately drop out of the climbing party altogether; some try but fail, some attempt to learn along the way, making up for lost experience.

Some potential climbers have natural ability and do not bother with extended practice, essential equipment and critical experience. They may succeed for awhile, but they usually become lost when they need this combination of resources the most. Similarly, many gifted students use their innate abilities to progress easily through school. However, it's only a matter of time before they reach more challenging and higher levels than they are prepared for; this may happen as early as elementary school or not until graduate school. This new level suddenly means facing the stressful predicament of acquiring unfamiliar learning skills and content simultaneously. At this point, some students drop out of school or fail, and some plunge ahead, struggling to make up for lost experience.

We cannot afford to let gifted students fall short of reaching their peaks simply because they are unprepared. We must provide practice using appropriate tools to build self-confidence so, when faced with the challenge, they can successfully conquer their own mountains. We must teach them **how** to learn along with **what** to learn. **Learning to learn** is one of the most basic and important lifelong skills we can acquire. Our lives are filled with hills and mountains. It's simply not enough to know **what** to climb; we must also know **how** to climb.

Gloria Frender, a nationally known educational consultant from Boulder, Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the mother of two gifted children and author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use.***

Six Steps

Continued from page 1

say 90%. Teach the non-mastered 10% in small groups, individually, or allow the material to be learned independently. Retest the 10% to insure mastery. Meanwhile, when the 90% of the material is taught to the rest of the class, free the student who has proved mastery, allowing involvement in other activities. Depending upon the student's interest area, acceleration or enrichment may be appropriate.

This last phase seems to be the most difficult. What does one do with the student who has proven mastery of the material? Discuss with the student areas of interest, out-of-school projects and independent strengths and design activities which are both interesting and academically challenging. Interest inventories and talks with the student's former teachers, parents and the library-media specialist are helpful. Designing a plan that involves other students in the class insures peer cooperation for the student who is compacting, while at the same time providing this student with stimulation and challenge.

Research on curriculum compacting shows that 40% to 50% of the regular curriculum for targeted students can be deleted. In language arts and mathematics as much as 70% of the regular curriculum can be removed (Reis, Westberg, et al., 1992). Considering such evidence, why would a teacher delay or ignore the process? Often, the cause for lack of implementation is a basic need for supportive services. Teachers may be reluctant to embark on an untraveled path without clear direction and landmarks. Consequently, proven guidelines must be established to insure a successful trip. Six such steps are currently in place in the Harrison County School District in Mississippi.

STEP ONE: An Initiator

One key to any curricular change is an initiator, an agent of change. This individual can be a district coordinator, a school-based coordinator, an administrator or a teacher. Someone must step forward and say that rigor in academics should be returned to our schools, advanced learners must not be stifled, children not only can learn but have a right to learn, and academic excellence is attainable by all children. Once such an individual surfaces, other services can act as key elements to success. The initiator organizes training, funding and other components of the support system, while broadening the support base.

STEP TWO: Regular Education Program

A basic step toward success is a change in the mind-set of the regular education community. Research shows that teachers can compact the curriculum with as little as an hour of training (Reis, Westberg, et al., 1992); however, in practice, compacting seldom happens. Little or no differentiation or curricular modifications occur for advanced learners, regardless of geographic area, school types, academic ability levels or ethnic backgrounds (Archambault, et al., 1993). Standard practice is assumed to be good for all students and is basically all they get. Exposure to enrichment models and/or critical thinking models offer educators new ideas for developing more meaningful teaching and learning strategies. To help insure curricular modifications in regular education programs, teachers must act as catalysts and their students as decision makers in this multi-faceted process.

STEP THREE: Gifted Education Programming

A wealth of knowledge, materials, training, and dedication waits behind the closed doors of gifted education programs. We must assist in opening these doors. Teachers of the gifted should be encouraged to share materials, knowledge and skills, and their services in providing this information and guidance can be invaluable in implementing the compacting of the general curriculum for gifted students.

STEP FOUR: Financial Resources

One workable method for attaining higher standards is the development of curriculum kits. These are multimedia, hands-on, activity-focused accumulations of material on a wide variety of topics, spanning many grade levels. With limited guidance, the subject-specific kits can be used in a library media center or checked out and taken to regular classrooms and gifted education classes. The key element is the commitment of financial backing

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to the concept of independent learning within the curriculum compacting process. Monies for this process have come from grants from businesses, donations, and parent organizations.

STEP FIVE: Library-Media Resource Center

The hub of the curriculum compacting process can be the library-media resource center. Curriculum kits can be developed, stored, checked out from there or used on site with any necessary monitoring. Training the library-media specialist in the process of kit development and curriculum compacting is critical. As a rule, these individuals are proponents of advanced, lifelong learning and delight in being of service to others (Drake, 1993).

STEP SIX: Community Resources

Individuals within the district can serve as speakers on a variety of topics. They are valuable sources of information when interviewed by the student who is compacting curriculum. The key is to have a list of community speakers in the hands of teachers and library-media resource staff. Such sources and a telephone can be the springboard for challenging, innovative projects.

Programs within the community are also important resources for curriculum-compacting students. For example, a local hospital's baby-sitting classes provided the impetus for two compacting students to create their own baby-sitting business. After attending the classes, the elementary students decided to market their baby-sitting skills, and they distributed business cards and advertisements throughout the community. The opportunity to plan and coordinate was provided at school through time "bought" by compacted curriculum. The skill needed to operate as professionals was provided by a community resource, the hospital.

Parents are a wonderful source of information and assistance. Informing parents of their children's involvement in the curriculum compacting process is necessary for support and parental input. Parents are usually willing to assist with materials, information, mentorships, time and organization. They provide a wealth of assistance specific to the topics being addressed.

These steps are in place in varying degrees in the Harrison County School District. Some schools have progressed farther than others, and some teachers are more receptive than others. District-wide exposure to critical thinking is occurring through the training of all 1st - through 6th - grade teachers in the program Talents Unlimited. KIDS KITS (Kids Interest Discovery Studies

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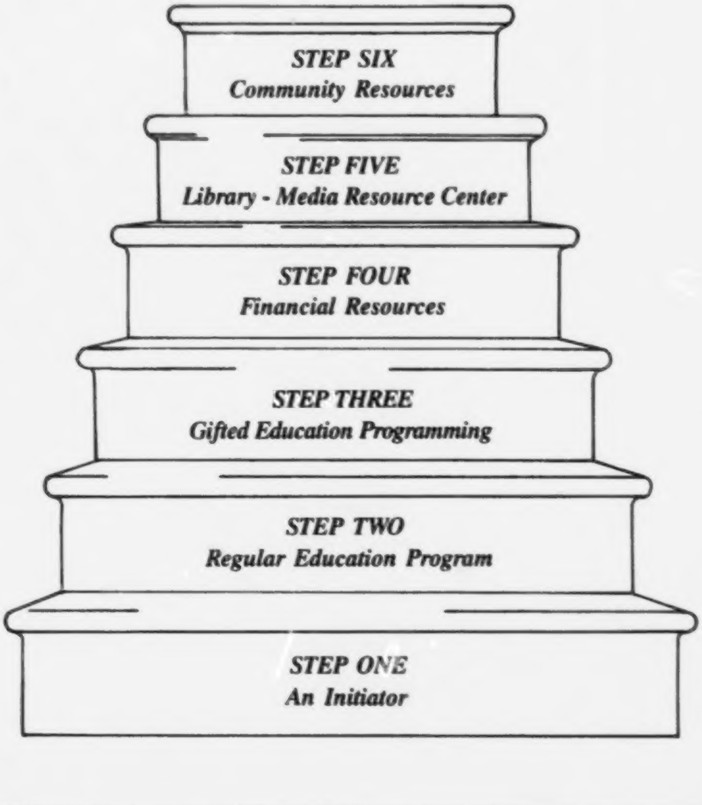

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KITS), a multimedia program to generate active, self-directed learning and higher thinking levels, is funded and under development by library-media specialists. A parent-business-community resource guide is being developed. Gifted education program teachers assist the curriculum-compacting process fully. Administrators are beginning to view the concept positively and encourage or require its use. Local survey committees studying the lack of academic success of some students are recommending the process as an appropriate option.

Consider these six simple steps and the climb toward academic excellence. Each step enables and strengthens the development of the next. To reach our destination we must have gained a level of competence at each preceding step. The process of curriculum compacting encompasses those who initiate change, those who fund, those who act as resources, and those who implement. Curriculum compacting positively impacts the learning process of the child.

CONCLUSION

Several worthwhile suggestions for parents to ensure their children's capability of meeting the challenge of higher standards are found in an unlikely source--*Reader's Digest* (Kiester & Kiester, 1994). Among the suggestions are: being in control of and requiring responsibility from their children, teaching when appropriate, having high academic expectations, encouraging problem solving, and valuing worthwhile fun.

Is there any benefit from "dumbed-down" curriculum for children who want to learn, are academically prepared to learn, and have high standards? No! Unless educators are capable of and willing to set high standards and to provide methods of attaining them, parental involvement toward academic rigor will be unassisted and doomed to fail in the current public education system. Indeed, the disparaging results of the United States Department of Education's report, *National Excellence: A Case for Developing America's Talent* (Office of Educational Research and Improvement, 1993), will continue. Gifted children will remain unchallenged. American children will continue to be the product of a "one-size fits all" curriculum.

Curriculum compacting is one method in providing for the academic damage control currently needed across our nation. It can initiate the individualized academic opportunities our gifted children require if educational standards are to be raised.

REFERENCES

Archambault, F.X., Jr., Westberg, K.L., Brown, S.W., Hallmark, B.W., Zhang, W., & Emmons, C.L. (1993). Classroom practices used with gifted third and fourth grade students. *Journal for the Education of the Gifted, 16*(2),103-119.

Chall, J.S. & Conrad, S.C. (1991). *Should textbooks challenge students? The case for easier or harder textbooks.* New York: Teachers College Press.

Drake, D. (1993). The "A" factor: Altruism and career satisfaction. *American Libraries, 24*(10), 922,924.

Farr, R. & Tully, M. (1985). Do adoption committees perpetuate mediocre textbooks? *Phi Delta Kappan, 66*(7), 467-471.

Kiester E., Jr., & Kiester, S.V. (April, 1994). Are we demanding enough of our kids? *Reader's Digest, 136-140.*

Office of Educational Research and Improvement. (1993). *National Excellence: A case for developing America's talent.* Washington, DC: U.S. Government Printing Office.

Reis, S.M., Burns, D.E., & Renzulli, J.S. (1992). *Curriculum compacting: The complete guide to modifying the regular curriculum for high ability students.* Mansfield Center, CT: Creative Learning Press.

Reis, S.M., Westberg, K.L., Kulikowich, J., Caillard, F., Hebert, T.P., Purcell, J.H., Rogers, J., Smist, J., & Plucker, J.A. (1992). *Technical report of the curriculum compacting study.* Storrs, CT: The National Research Center on the Gifted and Talented.

Linda Mucha is the Gifted Education and Curriculum Coordinator for Harrison County School District in Mississippi. As the district liaison to the National Research Center on the Gifted and Talented, she conducted the Center's research on curriculum compacting within the Harrison County Schools.

Breaking Barriers

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on the tennis courts. Michael begins his day pouring over the sports section in the newspaper. He can quote names, teams, scores and current locker room comments. Tied to his athletic abilities on the field and his interest in stats off the field is his high acumen in mathematics--his fascination and quickness with numbers. Michael operates full throttle, with a contagious smile and a comic's sense of humor. You know he's around! This year he is relishing the academic challenge of a magnet school for advanced students.

Our children are blessed with intelligence and talent...the dream of any parent. But along with these gifts come serious responsibilities and challenges. In the midst of parent nurturing and advocacy lies the vast arena of public education, school reform, content standards, and finance laws that can thwart meaningful and appropriate learning for bright students. My message to parents is to jump in and become involved!

A VIEW FROM MY MOCCASINS

Our young family moved to Colorado as Kim was completing her first year of "real school" in kindergarten. Bouncing into the last month of the semester in a new school did not allow for much opportunity to consult with teachers or ask questions. Kim had been tested for giftedness by a psychologist in the public school system in Ohio. At the time, I didn't know what all those numbers really meant, but I was convinced that her reading ability (10th grade level) was unusual. So, records in hand, my journey began.

At first I assumed that my daughter's documents would be automatically reviewed and acknowledged by the professional teaching staff. Not so. They lay dormant in the front office file along with 500 other student folders. Ignorance may be bliss when knowledge means work, change, recognition of differences, followed by appropriate instruction.

As the 1st-grade parent/teacher conference approached, I looked forward to a frank discussion about my child's abilities and needs as well as professional advice for her academic future. Instead, I was told, *Kim is writing book reports on her own initiative, but if we give her positive feedback, other students may want to do the same thing.* In response to my request for appropriate book recommendations (since Kim was only 7 but able to read at a much higher level), the teacher commented, *I don't believe in telling children what to read.* From this unsupportive discourse, I returned home heartbroken and discouraged. I sent a three-page review of the conference conversation, with a cover letter, to the principal, and a meeting was scheduled with principal, classroom teacher and district G/T specialist. Unfortunately, the meeting consisted of denial and begrudging suggestions for addressing my child's needs. What a disappointing and frustrating introduction to school and all that it could mean for my talented child!

If you have gifted children, you may have traveled a similar path. The experience can leave you so frustrated, angry and disillusioned about education that the situation seems hopeless and you, as a parent, feel helpless. At this point I decided to use my energy to make a positive difference. Pounding my fist on the principal's desk would not cut it. I had to find a way to contribute to the solution, not just add to the problem.

I joined the PTO, created a new position as enrichment coordinattor, and began to pool the resources. Before long our elementary school was offering morning classes in ornithology, architecture, calligraphy and foreign language. Several teachers were willing to share units of study in social studies and science, and from the curricular outlines I was able to coordinate related field trips, guest speakers, and parent displays, such as rock collections. A network of community resources was developing. The teachers who chose to participate were grateful for my time, and the successful results benefited children, parents and staff.

Next I joined our local district G/T organization, meeting many parents with common concerns and eventually becoming an officer of the group. I continued to learn about the field of gifted education, and began to attend state G/T meetings and confer-

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Breaking Barriers

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in school districts around the state, reaching out for ideas and resources, going beyond my children's school and our district-all these were productive alternatives. My community now accepted me as a parent committed to improving educational programming, particularly for the gifted. The *Big G* on my forehead meant more than *obnoxious gifted mother!*

Over the years I-and many other parents-have served on innumerable committees and volunteered untold hours to advocacy groups. What actually makes a difference? How long does it take before educators and administrators listen? When does practice become policy? Will this activism harm my child?

I believe **nothing** will change if parents don't speak up. It is common for parents of gifted students to be tolerated and placated, because with the "gifted" label comes the term "pushy parents." However, my experience with parents of the gifted has been just the opposite. They are more inclined **not** to raise issues concerning their child, and they feel embarrassed and unsure of saying the *G* word for fear of sounding boastful or creating a conceited "know-it-all."

Parents are reluctant to speak up, to join advocacy groups and to ask hard questions about school programming, until they see changes in their child....The thirst for learning becomes less apparent; the child tires of continuously raising her hand to answer questions in class and then not being called upon; being ignored or ridiculed by classmates becomes increasingly difficult; pride in school work declines. In 2nd grade, Kim began to throw tantrums if she misspelled a word on the list. She couldn't handle "failure" because she had never experienced challenge in the classroom. She expected perfection of herself, but had no real sense of the learning that comes with taking risks.

During the past 14 years, I have learned as much about myself as I have about my children. To be an effective advocate one must understand the field of education, the jargon and the politics in the system. Persistence must include balance and perspective. I have always made an effort to involve myself in "non-gifted" groups and projects. Volunteering to work on the school newsletter, baking a dish for the teacher appreciation banquet, teaching Junior Great Books, and even starting a nonprofit endeavor to promote foreign language study in the elementary school (Colorado Second Language Resources, Inc.) has made me less one-dimensional and perhaps more appreciated and respected. I am not obsessed with my children's giftedness, but I remain attentive and involved.

Resolute determination and long-term commitment have opened many doors and allowed for serious dialogue with policy makers, administrators, and teachers from kindergarten through high school. Willingness to put my time where my mouth is, get down to finding answers to difficult questions, and remember why this is so important, has made the difference. When the superintendent announced recently in front of some very frustrated parents of gifted children, *Julie, I believe you have waited long enough. Share with these parents the proposal for the magnet school.* I knew that even with highly trained and dedicated staff, the leap to real change, to shifting the paradigm, had come from parents. Today our district offers a magnet school option for advanced 4th- through 8th-grade students: the Challenge School. The need was documented and profound, but we had to create the idea, define its critical elements, and be willing to compromise. Now that the school exists, the faculty hired and students selected, we can begin to create an environment unique to the system and responsive to the needs of individual children. The dream has become reality. Without question it has been worth every minute of my time. Not only are my children benefiting, but so are many others.

ADVOCACY: ITS NATURE AND NURTURE

It is easy to become distressed by all the unresolved issues and conflicts in public education today. However, my own personal experiences support the importance-and the positive results-of parent activism. As a taxpayer and client with minors in the system, your first responsibility is to **be informed** and to **lend**

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Breaking Barriers

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your voice to the dialogue. But where are the platforms and how do you become a participant?

Begin with your child's school. Set up a meeting with the teacher and share representative examples of your child's interests and abilities. (Start collecting a **portfolio** of work as early as preschool age. Save all those special samples that you know are amazing.) Ask the teacher for suggestions for nurturing your child's talents at home and school. Is there programming in school for exceptional students? What can the teacher recommend for immediate as well as long-term implementation? Design with the teacher a time line for your child's **personal education plan**, what you can do to help, and when to schedule the next conference. Guide the teacher in finding ways to assess academic growth and mastery of content.

Ask for the district and building **plan for serving gifted and talented students**. Use it as a framework in your discussions with teachers and administrators. **Join committees** such as the building gifted/talented and accountability committees, and the local and state gifted/talented association. As new standards are developed and studied throughout the state and nation, look for announcements of presentations and committee work that focus on this area. Attend these discussions to learn what the goals and expectations are for instruction and learning. Are there continual opportunities for high achieving students to move on through the curriculum as they master required proficiencies?

Network with other parents and interested teachers. Each person becomes a valuable source of additional resources. Gather information on the **district's educational priorities**. What impact will they have on educating exceptional children? **Create opportunities for dialogue**; help plan "brown bag lunches" with the principal, G/T specialist, district administrator and school board members. **Volunteer your time to help** in the classroom, computer room, media center or resource room. Get to know the staff, offer your time in a constructive way, and take the opportunity to observe the climate of learning.

Meetings on educational issues are great places to gain knowledge and perspective and to share ideas. But sometimes these gatherings encourage an interchange of personal frustrations regarding individual children's school programming. Be careful! Don't abuse this opportunity; don't forsake the chance to build respect for yourself as a dedicated advocate. Remember to focus on the purpose of the meeting and respect the time others are committing. Meetings provide the forum for generic issues which may affect your child's education, but save discussion about your child's specific situation for a more appropriate time.

Casual conversations in the hallway with a teacher can provide the opportunity to offer time in the classroom helping with a project, relieving a teacher by taking a small group to the library, or assisting the slower group so the teacher can accelerate those students who have mastered today's lesson. However, casual hallway conversations with the principal are not the place to make your point about gifted education in the school. Take time to plan your key points and join with other parents to **set an agenda** for a meeting with the principal to discuss concerns. Prepare an outline of questions you would like the principal to respond to and submit them several days ahead. During the meeting, assign someone in the group to take notes. After the meeting is over, review the notes and summarize them in a letter to the principal to clarify what you understood was said. Then you have **documentation** for the future-as a basis for further planning, identifying parent and teacher responsibilities, and supporting continued efforts down the road.

If you organize larger presentations, such as an evening with the Board of Education, do the same-plan, present specific questions in advance, take notes, and publicize the comments. Words in print have significant impact within the accountability process. The process of inviting policy makers and administrators to discuss their thoughts provides an excellent opportunity to raise the awareness level of what is actually going on in the classroom, where policy meets practice, and what can be changed to improve educational programming for exceptional students.

As parents become politically active, they should be aware of

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state regulations and laws pertaining to education and exceptional children. To know that specific rules exist and to use them effectively in building a support base for services is each parent's responsibility. If there are questions regarding rules and laws, contact your State Department of Education.

THE JOURNEY AHEAD

Our moccasins are not the same, yet we may share many miles along similar paths. It is not easy to parent highly able kids bursting with the ability and potential to reach horizons we may never know. It is not easy being pegged as an elitist when what is being asked is equal opportunity to learn and to be educationally challenged. It is not politically correct to speak out for the unique needs of students who are already "smart." What about the average student? What about the handicapped? There are many more of them and their needs are great. Do we have to compete for attention and dollars? Can't we look at the individual child, acknowledge both strengths and weaknesses, and nurture what is unique and exceptional about each individual?

I have grown to respect and understand the complex and increasing demands made on the classroom teacher. As parents, we expect the educational system to responsibly and consistently provide for our children's academic needs. We cannot expect the system to provide without our support and involvement. We cannot expect the one G/T teacher in the building or in the district to stand up on our behalf in all circumstances. There is too much at stake for the professional and for the student.

Design a plan, create a proposal for change, build a grass-roots system of support.

Parents need to offer help as they ask for individualization for their child. When there is an issue to be addressed, be a part of the solution. If the solution does not exist, create a new avenue to address the problem. Don't slam the door; find a new door. Communicate clearly what you are asking and document your communications. Include other parents, teachers, and specialists. Share information and current research with board members, adminstrators and faculty. Invite discussions, brown bag lunches, forums with key personnel. Ask students what they think-you may be surprised! Design a plan, create a proposal for change, build a grass-roots system of support. Be assertive, not adversarial. Remember to compliment and say "thank you." Be a persistent and positive presence in your child's education. Be a role model that reflects the values that you demand of others. Be a good listener. Listen to your children.

> *Loyalty provides a different kind of accountability from the political/bureaucratic accountability upon which we mostly now rely in public education. It is the direct face to face accountability of people working together on shared goals.*
>
> David Seely

Julie Gonzales, long-time advocate for gifted education, has served two terms as Chair of the Colorado State Advisory Committee for Gifted and Talented. She is the cofounder of a magnet school for advanced learners and Executive Director of Colorado Second Language Resources, Inc.

In Colorado, programs are not mandated for gifted and talented students. However, State Board of Education regulations require that, in order for school districts to be accredited, each individual school must include in its school improvement plan adopted by the school accountability committee *a written profile of [the] performance of exceptional students (which by definition includes gifted and talented)*; {1 CCR 301-1, Sections 2.09, 3.06(3)(f)}; *membership of the school advisory accountability committee shall include parents of exceptional students* {1 CCR 301-1, Section 3.05(1)(b)}; and under 1 CCR 301-1, Section 3.13 (6), (a,b,c) *each district shall provide for identification of exceptional students, instructional and support services based on student needs, and evidence of commensurate academic growth for all exceptional students based on the local board of education adopted student outcome and performance standards.*

Mixed Messages

Continued from page 4

challenges. Such alternative opportunities assist talented girls in sorting out the mixed messages they encounter as they develop into gifted women.

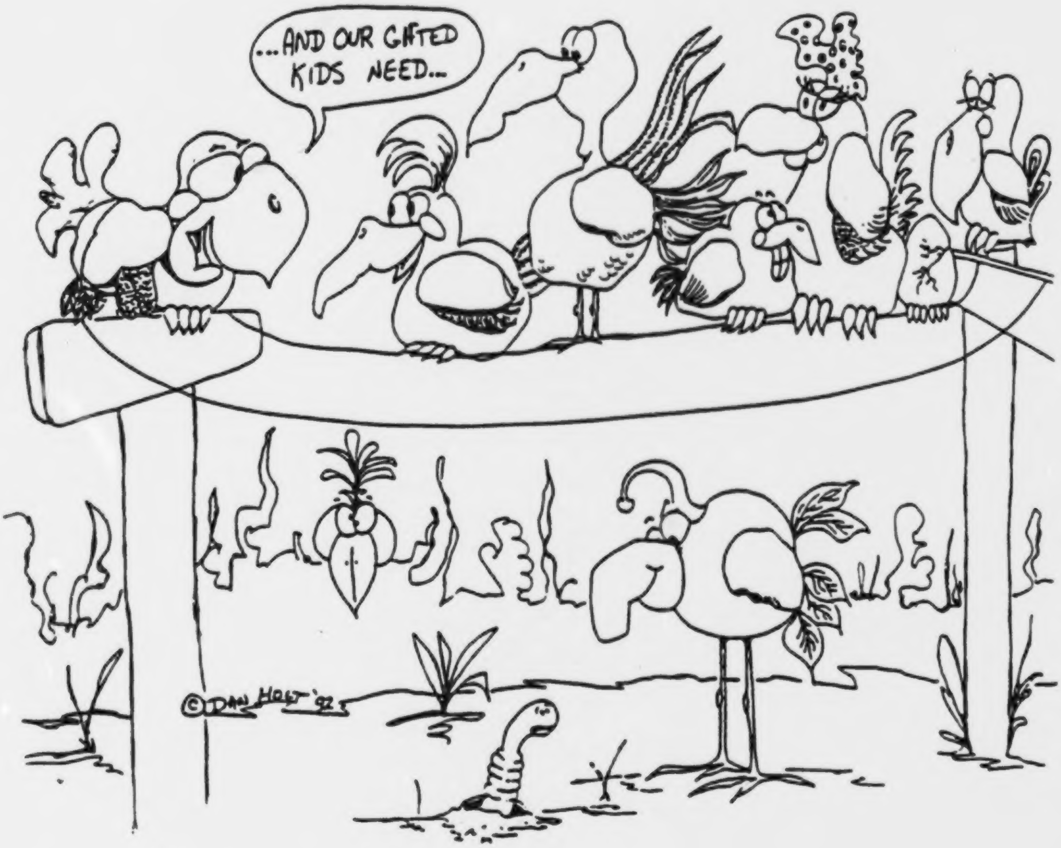
Parents can and must:

- Be consistent and encouraging advocates for their gifted daughters
- Advise them to "go for it" when opportunities are available
- Remember that positive self-esteem and effective performance go hand-in-hand
- Offer continuing nonjudgmental support; dispel the uncertainty of societal expectations; create a home environment that is accepting and safe.

REFERENCE

Smutny, J.F., Veenker, K., & Veenker, S. (1989). *Your Gifted Child.* New York: Ballantine Books.

Joan Franklin Smutny is Director of the Center for Gifted at National-Louis University in Illinois. She is the author of ***Education of the Gifted, A Thoughtful Overview of Gifted Education,*** and ***Your Gifted Child.***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In Search of Serendipity

Creative Ventures & Encounters

Jerry Flack
Tour Guide

The Great American Novel

The Great American Novel. Who will write it? Every would-be author dreams of creating THE masterpiece. Snoopy tries repeatedly to write it, but never gets further than a first line, "It was a dark and stormy night." Perhaps today's creative students can do better than Charles Schulz's canine creative writer. It is perhaps unrealistic to expect 5th graders or high school sophomores to write full-length novels, but these same students can have a simulated novel-writing experience.

Several years ago I read *Whistle*, the third installment in the adult World War II military trilogy by James Jones (1978) that began with the classic *From Here to Eternity* and was extended by *The Thin Red Line*. Jones died before he was able to finish writing *Whistle*, but not before completely plotting the novel. The book was published posthumously, and near the end-chapter 31-the narration and dialogue are completed. Readers are then greeted with a prose outline of what was to happen to all the characters through the end of the story, as Jones had envisioned it in its complete 34 chapters.

I experienced a creative flash. My students might not be able to write 200-400 page novels, but they could each begin to experience the task and joy of creating a novel by plotting one and writing at least a small portion of it. I gave my students "Create Your Own Novel" worksheets with the following directions:

1. Choose a title.
2. List the major characters and tell something about each one; preferably write a brief character sketch of each.
3. Describe the major setting(s) or locale(s) involved in the plot line.
4. Write a brief synopsis of the plot.
5. Give a chapter by chapter outline of the novel; 7-10 chapters, minimum.
6. Choose one chapter from the novel outline and write it in full, complete with all narration and dialogue.
7. Design a creative dust jacket for the novel.

The assignment offered students the opportunity to move beyond the single story line and the brief characterizations found in short stories to the multiple plots, complex characters, and explorations of themes found in novels. The complete chapter students were asked to write could be the opening chapter, a middle chapter, or the conclusion of the planned novel.

I created a sample for students to follow. The title of my novel is *Summer Wind*. David Erickson, one of the characters, is described

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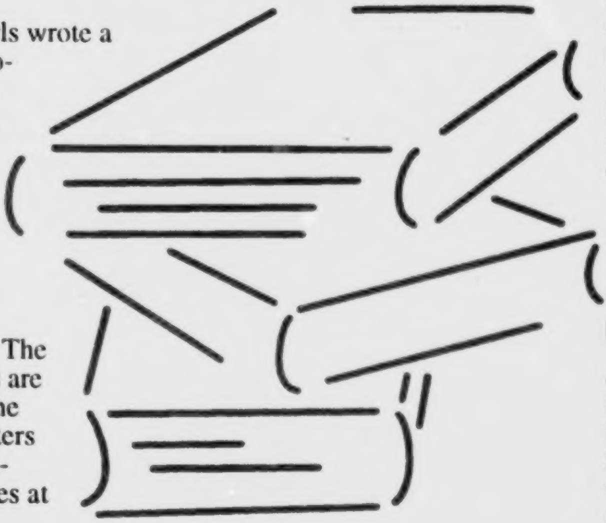
as "17, a superb athlete, popular, handsome, and intelligent. His only fault appears to be his intense desire to always win every contest, no matter the cost." Several other characters are also described. The locale for the novel is Remmington, Wyoming, a middle class town of 70,000, with two high schools that are fierce athletic rivals. The central plot explores the relationship of three teens intensely involved in the world of high school sports. I further supplied the students with samples of narration and dialogue which their fully written chapters might resemble.

Creative students from the upper elementary grades through high school loved the novel writing assignment. Many said they had wanted to write a novel, but the task had seemed overwhelming. My abridgment of the process made the task seem possible. Some students became so excited with the initial assignment that they continued writing beyond the one required chapter and completed works of fiction 100 pages and longer.

Two eighth-grade girls wrote a delightful novel as co-authors. Their novel used a letter format, the same format, incidentally, utilized in the very first English novel, *Pamela*: or *Virtue Rewarded* penned by Samuel Richardson in 1740. The two characterizations are established early in the novel through the letters and notes the girls exchanged during classes at school. The young authors assumed the roles of two adolescent girls whose special friendship has to endure separation when one of the girls moves 1,000 miles away. Then, the school notes become longer letters mailed across the country. Through the chapters and letters of their novel, the characters mature individually and their friendship is strengthened.



There is an old adage that writers should stick to writing about familiar experiences and locales, but I did not find that to be totally true. Some of my most gifted students were so well read and knowledgeable about the history and battles of World War II or about the latest science and communications technology, that they were capable of writing effective and convincing war and science fiction novels.

Students were creative in their choices of plots and themes, and the requirement of the dust jacket brought out an artistic flair in many students. One young man did not stop with writing his own novel. He posed as a literary critic and wrote a scathing review of my demonstration novel. His review began, "*Summer Wind*, the latest effort of the world renowned author Jerry Flack leaves the reader wanting.......a garbage can, the only appropriate place for this trashy work. This so-called novel is totally shallow, filled with cliches, and devoid of any redeeming qualities. It's **borrrrring!**"

What can I say? The critic was right. I did not write a masterpiece. But, I did create an assignment that allowed students to be creative. Who knows? One of those young writers may some day write that Great American Novel.

REFERENCES

Jones, J.(1985). *From here to eternity.* New York: Dell.

Jones, J.(1977). *The thin red line.* New York: Scribner's.

Jones, J.(1978). *Whistle.* New York: Dell.

Richardson, S.(1981). *Pamela: or virtue rewarded.* New York: Viking.

Author's Note:

Samuel Richardson (1689-1761) wrote *Pamela*, published in 1740, and generally acknowledged to be the first modern novel. (*Pamela: or Virtue Rewarded.*(1958). New York: W. W. Norton & Co.) The novel is told through a series of letters written by and to the central character.

Jerry Flack is a President's Teaching Scholar and Professor of Gifted Education at University of Colorado, Colorado Springs, and author of several books, including ***Inventing, Inventions, and Inventors*** and ***Lives of Promise.***

ADHD Revisited

Rae and Richard Desaulniers know that children in the same family can be very different. They weren't quite prepared, though, for the differences between their daughter Jacqueline, now 11, and their son Richie, now 8.

From the time she was 3 months old, Jacqueline enjoyed looking at books, Rae recalls. *She walked and talked very early, was reading at 2 and writing by 3 or 4.* By the time she entered kindergarten, Jacqueline was reading on an adult level. Rae remembers her then as *very tiny and very precocious,* and as she grows older, her academic and artistic efforts are characterized by high creativity and a drive for originality. Naturally introverted, she tends to have a few close friends and an innate sense of empathy.

Richie, on the other hand, is extremely extroverted. *He **has** to be around others,* Rae comments, *but he doesn't have his sister's ability to listen to the other person. At the same time, he's very eager and very athletic. He **craves** knowledge; in fact, he hounds you until he finds out what he wants to know. He won't let go of a problem until he solves it.*

The contrast with his sister goes beyond these stylistic differences, however. Rae describes Richie as *a difficult child from day one. By the time he was in kindergarten he was driving us up the wall. We started getting reports that he was having trouble paying attention and had a low attention span. We always recognized that he was a busy, active child, but we didn't expect such difficulties.*

Because Richie was prone to allergies and minor illnesses, his parents took him to an ear, nose and throat specialist. *I thought he was being especially good,* Rae recalls, *when the doctor asked me, 'Is he always this hyper?' At that moment I began to realize we might have something more going on here.*

It wasn't until about a year later, though, that the Desaulniers arrived at a diagnosis of ADHD. *At that time I started reading everything I could find about attention deficits and for the first time everything seemed to make sense,* Rae says.

However, that wasn't quite the whole story. In addition to his medical assessment, a psychological assessment was done at Richie's school. Throughout the report were comments such as: "Didn't pay attention...didn't complete...was uncooperative." Although the psychologist stated that "Richie is an extremely willful child," she did not believe that he had ADHD. Why not? Richie's scores were unusually high on some subtests for a child with an attention deficit disorder, particularly in problem solving and math. Those areas were still lower than others, but they were considerably higher than a typical child with ADHD. His parents, on the other hand, knew that these were areas of real interest for Richie, and, therefore, they were surprised at the confusing scores.

Despite the school's test results, Richie's parents and his physician had no doubts about starting him on Ritalin. *The change was immediate,* says Rae. *This could have been your poster boy for ADHD. Richie couldn't sit still, but within three months, when he turned 6, he was doing grade 3 math—multiplication and division.* Richie's considerable talents began to shine forth. The extent the ADHD had masked their son's giftedness was a revelation to Rae and Richard. *No wonder he couldn't read before,* Rae remarks. *He couldn't sit still for 10 seconds at a time!*

The other revelation to the Desaulniers was the *amazing outlay of resources that was offered once our son was labeled as having a behavior disorder. He worked regularly with an itinerant teacher, and the school continues to ask, 'What would you like us to work on with Richie? How can we best help him?' We're very pleased with the support he has received....Now wouldn't it be nice if there were a similar recognition of Jacqueline's special needs?*

Mary Lynn Baum is past president of the Gifted Children's Association of British Columbia, Canada; a long-time Editor of its newsletter ***Bright Connections;*** and a parent of a highly gifted teenager.

Antenna

Current Developments

"We continue to worship the great god Mediocrites," says Joan Winters (1994), a middle school teacher and coordinator of programs for the gifted. Winter expresses concern that we "care about gifted kids only as national resources," adding that the "spotted owl and California condor get more attention as endangered species." (p.4).

Is Winters correct? I hope not, but I'm worried.

On the pro side, there is an increase in active partnerships of parents and educators working to provide challenge for gifted students. There is a subsequent growth of magnet programs, charter and focus schools; combinations of homeschooling and school curriculum; acceleration and enrichment programs; mentorship programs initiated by cooperation among parents, teachers and community.

More schools are receptive to conferences with parents, teachers, principal, school psychologists and other appropriate personnel to discuss a child's needs and determine an individualized education plan. Aspects of the special education IEP, as well as emphasis on the least restrictive environment, are used more often for gifted students.

The con side includes the following discouraging stories: After an IEP-type conference, a 4th grader was given accelerated math to work on during spelling period. However, she had to stay in for recess to complete the spelling assignment (easy busy work for her!) she had missed. She told her parents she felt she was being punished for knowing more math than the other kids, and, therefore she didn't want to continue with an advanced math program.

A middle school student was failing both math and language arts. He had developed so many unexcused absences that his parents were called in for a conference, during which the boy confessed the following: Instead of doing homework he worked on his computer, writing a novel and developing an intricate database to market it. Because his school subjects seemed irrelevant to him, he was returning home after his parents left for work and spending his time at the computer.

The parents of a 1st grader, who had been reading since the age of 2, were told that she "hid behind her books," while her unfinished work sheets piled up. When asked why she didn't complete her work, she said, "Because I already know that stuff, but I learn new things from my books."

I want to be patient and believe that positive educational changes will solve the dilemmas of the above children before it's too late for them. I hope gifted education will soon become an accepted part of the entire public school agenda–everywhere.

Endangered species? I certainly hope not.

REFERENCE

Winters, J. (1994). From the trenches, *TAG update, 16*(3), 4.

Dorothy Knopper is a private consultant for gifted education in Colorado, author of ***Parent Education: Parents as Partners***, and publisher of ***Understanding Our Gifted***.

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The Bulletin Board

This space is for you!

This section serves parents, teachers and non-profit groups. We will print your announcements as space permits.

Open Space Communications presents its second annual conference, **Beyond Giftedness II, "Parents, Teachers, Kids as Partners in Education: Challenges/Problems/Solutions,"** February 24, Arvada Center for the Arts & Humanities, Colorado. Contact Dorothy Knopper, (303)444/7020.

TAG Parent Network is seeking contact with other state groups with goals of action oriented advocacy, legal issues, and information and services to parents. Contact Monique Lloyd, 32870 Lake Creek Dr., Halsey, OR 97348, (503)369-2515.

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UPDATE ON TECHNOLOGY

Guest Editor:
Sandra L.Berger

Software Choices for Gifted Kids
Gregory C. Pattridge

Surfing the Internet
Sandra L. Berger

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- *W.B. Prescott*

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November/December, 1994

Volume 7, Issue 2

Software Challenges For the Gifted

Gregory C. Pattridge

Almost monthly it seems that an exciting new computer with upgraded memory and multimedia capabilities bursts on the scene. As great as these new machines are for the consumer, their capabilities will be matched by the software chosen to accompany the hardware. Deciding which titles to purchase can be a frustrating and overwhelming experience.

There are thousands of iterations of educational software available, and with the increasing popularity of CD-ROM the market is becoming even more crowded. To make matters worse, the majority of the offerings are not worthwhile and their use is relegated to collecting dust on the shelf or using up precious hard drive space. I have developed criteria to help sift through and find the best titles to recommend for gifted students and their families. The criteria I chose focus primarily on the needs of the gifted student, but the end result is a list of software titles that can prove successful for all ability ranges. Because it is rare to find material that meets all the criteria, software making the list match at least three out of five

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FOCUS ON:

UPDATE ON TECHNOLOGY

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Sandra Berger

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Surfing the Net:
On the Road

Sandra Berger

How can I get information on developing a space simulation in my classroom? Where do I find lesson plans that involve creative and critical thinking? Where can we find a guest speaker who can discuss plant life and other ecological studies? Where can I get historical documents? Where do I find a highly accelerated mathematics course for a student who lives in an isolated geographic area?

These are the kinds of questions asked by parents, educators, and other professionals whose lives intersect with those of today's gifted students. It was at this intersection in early 1993 that my own curiosity and interest in the Internet were jump-started by a trend I saw in this country toward the elimination of specially designed programs for gifted students. I wondered what, if anything, might fill some of that resulting void, and it was then that I got myself onto the highway—**the Information Superhighway**—and began to explore routes and methods for gathering information, sharing resources, collaborating, and communicating. Right away I

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UNDERSTANDING OUR GIFTED

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Desktop Publishing by Ann Alexander Leggett.

PROLOGUE

You know a lot about computer technology and can't wait to find out more. Or you know very little about it and feel guilty that you haven't learned more. Either way, this issue of *Understanding Our Gifted* is an update on information critical to the parents and teachers of gifted children.

We are fortunate to have as our Guest Editor **Sandra Berger,** sharing her dual expertise in technology and gifted education. In her lead article, she shares her considerable knowledge of the Internet, explaining its complexities and the implications for gifted students. "Surfing the Net" will continue as a column in future issues, and Sandy will be available to respond to your questions.

In **Greg Pattridge's** lead article, "Software Challenges for the Gifted," recommendations for educational software are based on his carefully developed criteria.

Barbara Mullins, our new "Parenting" columnist, adds her talent and experience to our list of contributors; and **Sally Walker** joins us with the inaugural of our new column "Tactics."

Watch for new writers from among our prestigious Editorial Advisory Board. As always, your suggestions are welcome.

D.K.

PROFESSIONAL DEVELOPMENT SERIES....Current Themes in Gifted Education. ***Affective Education: Self-Concept & the Gifted Student*** by Dr. Elinor Katz, Dean of Education at University of Denver; ***Parent Education: Parents as Partners*** by Dorothy Knopper, consultant and publisher. Use order form in this issue or call (303)444-7020/FAX (303)545-6505. Watch for more books in this series published by **Open Space Communications, Inc.**

Give me one moment,
one moment more,
to try
to explain myself.
I must tell you
there's more left unsaid
in this world.
Words pass me by,
dreams
slip
my
hand
as soon
as I try
to hold them here and now,
to write this page,
they run
from my mind.
I find nothing real to pen.
I can't show you
everything here,
but when
can I tell you?
Out of the store
of this imagination,
thin trickles
escape
from time to time
into
words
on
a
page.

Katrina Zethmayr
High School Student
La Grange, Illinois

Tactics

Discipline

Discipline your children. Giftedness is not an excuse for unacceptable behavior. Bright children are often rational, logical, articulate and convincing in their arguments, but it is a mistake to argue with them over discipline or to let them have control. You, the parent, are older, have lived longer in this world and experienced far more and are therefore wiser; you must be the one in control. Curious about how far they can go or who *is* in control, some kids will push and push at the limits. One young man who was sent to his room called out, "My foot is in my room. How much of my body has to be in?" Clearly expressed expectations and logical consequences help define boundaries in positive, responsibility-fostering ways.

At all costs, avoid power struggles. They sap precious energy and are unproductive. Establishing a set of good, fair and consistent rules puts you into the active role of leader and provides children with an all-important baseline for behavior as well as identifying the parameters of what is acceptable and what is not. Good rules should:

- Have a single interpretation, with all parties agreeing on details. (i.e.. "Everyone must be ready for school before breakfast." Out of the discussion of "ready" will come details.)
- Be realistic. Can the child really obey the rule? Is the rule enforceable? Do you break the rule yourself? Are you in a position to check to see that the rule is followed?
- Discuss the rule. Children need to see why it is needed and how they might benefit if it's observed. This helps get children with you rather than against you.
- Form a fewer number of quality rules.
- Prepare one or more plans that you can follow if the rule is broken. You want to have the logical, agreed-upon consequences in place before you need to invoke them. Over-reacting with severe punishments or under-reacting with weak pleas or mild warnings helps no one (Silberman & Wheelan, 1981).

Discipline means encouraging children to assume responsibility, essential in their academic as well as social lives. If they are to make it through our education system, they *must* learn to take responsibility for their own learning and behavior. Too often, it seems, super parents do too much for their able children. It's best for all if parents recognize that there are times to reach out helping hands and times to get out of the way. Unless it's life threatening, there's no kindness in protecting children from the realities of their actions. Parents must let their youngsters do for themselves what they say they can do. Children thrive on responsibility, and if their judgment is at fault, that too is learning.

Whatever the ages of our gifted children – from the precocious four year old who's trying to take over her preschool, to the highly achieving fourth grader who doesn't see the need for doing any of his homework because he already "gets it," to the adolescent who believes curfews are for other kids – remember that discipline is best established before the fact rather than after. And remember, too, that what is obvious to you may not always be to your children: don't forget to tell them you love them.

REFERENCE

Silberman, M. & Wheelan, S. (1981). *How to discipline without feeling guilty*. Champaign, IL; Research Press.

Sally Walker, consultant at the Illinois Educational Service Center #1, works in the areas of gifted education, scientific literacy, fine arts, school improvement and assessment. A teacher and parent of the gifted, she is the author of ***The Survival Guide for Parents of Gifted Kids***.

Barbara Mullins

Parenting

The Importance of Social Skills

Before I worked in a corporate environment, and before I had children, I thought that intellect was the most important asset that anyone could have. Both these experiences have changed my mind and led me to believe deeply in the importance of social skills.

What, exactly, are social skills? From the thesaurus come the words collective, common, companionable or friendly for social, and ability, accomplishment or competence for skill. Putting the two together, a good definition might be: *the ability to establish and maintain relationships with others.*

I wonder, then, if this isn't the key to much of what is potentially painful about being gifted? To be gifted is to be different, which so often means not fitting in, being separate or alone, out of sync within ourselves and with others. And sometimes all this results in having difficulty with relationships. Profound pain and disappointment can come out of the gifted individual's often acute sensitivity and deep yearning to be understood and connected with others. How we parent can mean the difference between our child having or developing the ability and willingness to build social skills.

From a business perspective, I have had many opportunities over the years to see people succeed and fail. Lack of competent technical skills is not the problem; rather, what appears to make most people fail is their lack of social acumen. Successful social skills in the business world seem to me very similar to what accounts for children's success in school: their abilities to make friends, be included in social functions, complete projects with others and participate in extracurricular activities.

Helping gifted children develop effective social skills to last a lifetime takes thought, planning and guidance. First, these youngsters must be taught to strike a balance for themselves between humility and pride in their gifts. To me, humility is the essence of friendship; to be humble is to not draw attention to oneself, especially not at the expense of others. It won't always be easy for gifted children, with all their special abilities and multiple differences, to learn and practice this. A reminder of the adage that *to make a friend, you first have to be a friend* may be helpful to them.

On the other side of that social skills' scale is pride, a key factor in building healthy self-esteem. It is appropriate that children revel in their abilities and accomplishments, but it is imperative that they learn the difference between healthy pride and bragging or boasting. Fostering this balance of humility and pride will not only be good for the child, but it can also enable the parent to value the whole child and not just his potential or her accomplishments. This whole-family approach creates a safe place that allows mistakes and learning, and encourages risk-taking.

Second, as parents we must allow and encourage our children to fully experience childhood. For the very young ones, there's plenty of time for determining abilities and academics as they grow up. But there's never enough time to undo the damage and the pain children feel when they're not picked for teams, chosen as playmates in the school yard or invited to parties. Focusing on building social and emotional skills reduces the risks of not fitting in when the child enters school.

If the child is older, struggling and already experiencing the difficulties of lacking social skills, it's hard but never too late to begin helping and teaching. Teach the child to be introspective

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Importance of Social Skills

Continued from page 5

and reflective and encourage dialogues of possible strategies or approaches to building relationships. Be the parent who creates opportunities for success and is the child's resource, advocate and sounding board. And, most importantly, listen to your child, take him/her seriously and be empathetic to the profundity of strong emotions.

Third, be a good model. By daily showing your child how you spend your time, what books you read together and the topics you choose to discuss, you can build acceptance and teach the value of diversity. How can gifted children appreciate differences in themselves and others without this perspective? Unfortunately, giftedness is often equated with value, as if the smarter or more able children are, the more valuable they are. Our children need to understand that giftedness is not better, just different. Development of social skills enables us all to build bridges of understanding to others.

Barbara Mullins, an education manager in St. Charles, Illinois, is the mother of two gifted children.

Connecting Schools to the Internet

In North Carolina, Texas, California and increasingly in districts all across the country, schools are connecting to the Internet, providing students and teachers access to nearly limitless stores of information. Many schools have installed, or are in the process of doing so, local area network (LAN) cable to connect computers within their buildings. Once connected, all of a school's computers have Internet access and are linked and able to share news of projects and activities.

An innovative program in Michigan offers a good example of what is currently both possible and working. Ameritech, the state's telephone company, offers dedicated Internet connections for Michigan K-12 schools, public libraries and community colleges. The company has set up two $12,000,000 funds for this purpose, one for state-wide Internet infrastructure and a discount program, and the other as a grant program for "hubs" or school district consortia. Ameritech's rebate plan is enabling schools to make their Internet connections, and with the intention of encouraging participation, access service discounts are also offered. Hopefully, by the fall of 1995, 500 schools will be online throughout the state.

The connections being installed in the Michigan project are different from the modem links and individual phone line access Sandra Berger discusses in her article in this issue (See options #2 and 3 on p. 13). Each computer in a school is equipped with a device known as a "router." Over the LAN, a dedicated phone line connects all of the school's computers to the Internet at once. There are two types of dedicated connections, distinguished by their access line speed: either 64,000 or 1,544,000 bits per second (64Kbps or 1.544Mbps). 64Kbps is useful for connecting a single school's computers via its LAN to the Internet, while 1.544 Mbps (sometimes referred to as "T1") can be used in designs of multiple-schools or whole-district Internet connections. Additionally, a Networking Resource Center, which will include support and training services, is being built by Ameritech. The Center will cooperate with existing and emerging K-12 technology support organizations throughout the state.

As more schools find their way onto the Information Superhighway, the potential accelerates for creative applications in education. (See box on page 18.) Bulletin boards providing state-of-the-art information and current communication on any subject will be at a user's fingertips. Graphics, weather, robotics and creative writing are only a few areas that have been explored so far. As we proceed towards the Millennium, the Internet, limited only by the human imagination, is poised to become an integral part of educational curriculum.

For information about the Michigan program, send e-mail to info@aads.net, or call (313)913-0800.

Gloria Frender

Learning Styles

Creating Understanding and Learning Power

Numerous attributes contribute to the making of our individual "learning style." Left/right brain dominance and the learning modalities of the auditory, visual and kinesthetic will be the specific focus of this and subsequent columns.

What is half of 8?
(It all depends on how you interpret the question; there is more than one answer.)

Why Consider Learning Styles?
Gifted students excel in finding multiple answers. They often demonstrate various methods of problem solving and express ideas that may appear confusing and even peculiar. It is difficult for them and others, their peers, parents and teachers, to understand **how** and **why** they so often respond in atypical ways. Although such thinking processes and responses can be labeled "creative and refreshing," they can also lead to misunderstanding, criticism, frustration and withdrawal. It is possible that "gifted children can maintain their uniqueness and also adapt to the real world" (Knopper, 1994, p. 7). One significant approach in helping them adapt and simultaneously feed their natural, intense and constant passion for learning is to help them recognize how their brains function in the learning process. Through a better understanding of themselves and others and in developing successful means of implementing many of the learning tools they already possess, these gifted young people can then more fully reach their enormous potential.

All children, at the earliest appropriate ages, need to understand how their brains "work" and the unique role this plays in making them who they are; however, in the gifted population this need is heightened. As we have all seen time and again with these children, at early ages, in preschool and often before, the gifted are aware that their thinking and perceptual abilities make them "different." The more knowledge, and self-knowledge, they possess, the more the students feel in control of their learning and the more confident they become operating from their differences and not in spite of them. Because so many of them seem to have a strong desire to know just how their brains operate and how this specifically affects them, sharing, comprehending and utilizing some basic components of individual learning styles provide an effective and enduring tool that can unlock future success. Armed with this information, gifted kids, as well as adults, quickly learn to:

1. "view differences as potential strengths rather than deficiencies" (Silverman, 1994, p. 16),
2. become more accepting of themselves and others,
3. work with their brains instead of against them, building on natural strengths and improving weaknesses,
4. direct their learning to reach their potential,
5. adapt flexible thinking and make adjustments when needed,
6. strengthen communication skills,
7. realize more options and reduce stress; lower frustration and impatience levels, and
8. become successful independent life-long learners.

Understanding Learning Styles
Each of us has a distinctive individual learning style that depends upon how we receive, comprehend, store and transmit information. It shapes and guides our thinking and requires use of different strategies to absorb and process information which remain the same regardless of subject matter. How a person functions in the world is directly related to his/her learning style.

While the human brain acts as a whole, it is physiologically divided into two hemispheres (left and right) which act, react, think, process and solve problems in very different ways. Table 1 lists characteristics for each hemisphere.

Overall, dominance in one hemi-

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Learning Styles

Continued from page 7

sphere is not superior but, depending upon the task at hand, one set of characteristics might be more appropriate, efficient and effective to employ.

It is important to remember that everyone continually utilizes some right and left brain attributes, but for most of us one hemisphere is usually more dominant to varying degrees and controls the way we function the majority of the time. The older we become, the more experiences we accumulate and the more likely we are to balance the use of both sides. Understanding the profiles of left/right brain dominance and how each individual fits within them truly affects learning, teaching and communication skills.

Left	Right
• sequential: systematic approach • analytical • structured/planned • controls feelings • logical • rational • solves problems by breakingthem apart; thinks of one thing at a time • time-oriented • looks for the differences • talks to think and learn	• holistic: scattered approach • creative/responsive • spontaneous • lets feelings go • more abstract • acts on emotions • solves problems by looking at whole; thinks of numerous ideas simultaneously • spatially oriented • looks for similar qualities • "pictures" things in order to learn

Table 1

Because it not only increases learning potential but also significantly enhances self-awareness and self-esteem, students need to develop the ability to recognize, deliberately access and use the knowledge of their own, and alternative, ways of thinking. A student may find herself in a situation in which most others in the class seem to "get" the material being presented, but she does not. If this experience is repeated, the student will begin to seriously doubt her learning ability, accompanied by rapid increases in her anxiety and frustration levels. For this student what is most likely happening is that the information is not being presented in her preferred learning style, with which she is unfamiliar, and so she is unable to help herself. If she could learn to recognize the presentational format (holistic vs. sequential) and could then adjust her thinking process, she would be helping herself to meet her needs by finding her own best method for receiving information. Learning long division provides a classic look at how the two hemispheres operate. A right brain dominant student needs to see the entire problem and understand the whole concept before trying to find the answer; he might attack long division as if it were a mystery and work "backwards" to see the relationships and placement of the numbers. The student in the next seat, a left brain dominant person, more likely would prefer to deal with each number separately in a step-by-step approach that would allow him to understand how the process builds to the solution. Without each individual student's awareness and use of this information, either might go on a long, long time believing that long division is beyond him and that there is much more he just does not, or cannot, get.

Teachers and parents — who are certainly teachers too! — almost always teach in their preferred learning styles. When selecting your child's teachers, observe their teaching and ask for placements according to what you perceive as the best match up of teaching and learning styles. Providing teachers with students' learning-style information, as well as with its critical importance should they be unaware of those implications, can be equally valuable. Student-teacher, student-parent and student-student communication can be improved through each individual, whether young person or adult, taking the time and effort to observe the method of operation of others and then proceeding based on those observations. In communicating

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Learning Styles

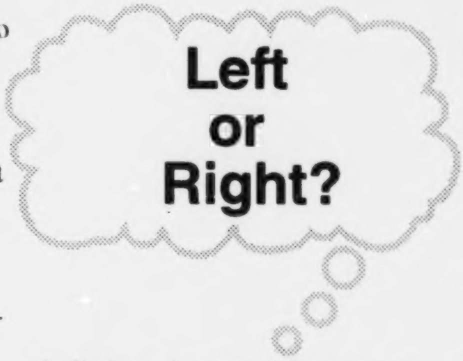
Continued from page 8

as well as learning, right brain dominant people are helped by beginning with a descriptive overview with an indication of the expected outcome, then by adding analogies, suggested patterns of thinking and the main components. Left brain dominant people are helped by having the question/ problem stated, followed by the use of a logical step-by-step approach, an analysis of each step linking it to the preceding one, all accompanied by concrete examples and details. Greater communication and learning with less frustration is the goal for all.

Encouraging Appropriate Learning Strategies

Inspire students to understand their own learning styles and identify those of others in order to become independent learners. If there is trouble, as with our student above who thought everyone besides herself in the class was learning easily, the first step towards a solution is to identify the problem. It may be that the material is not being presented in a way students can easily understand, and by encouraging them to think of how they can transform the information to their particular learning styles they can move towards solving the problem. In other words, when one method of thinking becomes frustrating or tedious, they should conscientiously focus on another approach (switch from left to right, or right to left, hemisphere). The following suggestions can help to accomplish that task as well as encourage integration of both sides:

- Identify what is already known about the subject
- Identify method already tried to learn the information (L or R brain)
- Recognize what type of thinking must be used, or changed, to accomplish the goal
- Reorganize the information in a system or pattern that makes more sense; divide the material into some main topic areas and then link the details to each topic
- See the whole picture, overview, end result or solution
- Systematically break the material down into small steps
- Literally, draw it out while talking through it
- Use 3 x 5 cards (one concept per card) for better organization
- Organize using both a holistic and sequential approach; begin with an overview, then systematically break it down into steps.


Left or Right?

All this brings us back to the original question. What is half of 8? Did you answer 4, or 0, or 3? (Hint: reconsider your perception of "half.") Which side of your brain did you access for your first response? Did you respond with one, two, all three? Or more? Did you "switch" over to your other hemisphere for further help before or after reading the answer?

Understanding how the left and right hemispheres of the brain function can help in:

- striving for a deliberate use of both to an individual's fullest potential,
- understanding and applying how to learn, teach and communicate more effectively,
- acknowledging and appreciating one's own differences and those of others,
- sharing this information immediately with children, family, friends, students and teachers.

It is truly a gift for greater understanding.

REFERENCES

Frender, G. (1990). *Learning to learn: Strengthening study skills and brain power*. Nashville: Incentive Publications

Frender, G. (1994). *Teaching for learning success: Practical strategies & materials for everyday use*. Nashville: Incentive Publications.

Knopper, D. (1994). *Parent education: Parents as partners*. Boulder: Open Space Communications.

Silverman, L. (1989). Spatial learners. *Understanding Our Gifted, 1*(4),16.

Gloria Frender, a nationally known educational consultant from Boulder, Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the mother of two gifted children and author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use***.

Software

Continued from page 1

requirements.

CRITERIA FOR CHOOSING THE BEST EDUCATIONAL SOFTWARE TITLES

1. Contains Wide Range of Levels

There are some great software titles that are entertaining and enjoyable, but boredom usually sets in after several months of use due to the software targeting a limited ability level. I looked for software with a challenge range beginning at five years that would extend on into adulthood.

2. Teaches Educational Curriculum

I am still surprised when software is labeled as educational and comes closer to being the next Nintendo best-seller. I look for material that can challenge and teach some aspect of the curriculum. When a student is not being taught at his or her level in the classroom, maybe a piece of software can fill the void.

3. Develops Higher Level Thinking Skills

Software should challenge the student and not merely request answers to knowledge-based questions that could come straight from a textbook.

4. Requires Outside Research/ Decision Making

The student should be encouraged and motivated to do research away from the software program. This may be through a trip to the library or into another software program to find answers.

5. Provides Extensive Feedback

Good teachers always provide continuous verbal reinforcement for learning. The computer program should also provide feedback to let students know they are on the right track.

THE BEST IN EDUCATIONAL SOFTWARE FOR THE GIFTED STUDENT

This alphabetical list contains 21 different titles, but finding them can present a challenge in itself. If you cannot locate any of these at your local software store, try ordering direct from the publisher or at considerable savings through one of the many software catalogs.

• A.D.A.M. THE INSIDE STORY
(A.D.A.M. SOFTWARE
800-408-2326)
health/anatomy/ages 10-adult

A great one for all those future doctors. Detailed color illustrations let you peel away one layer of the body at a time and see various bodily functions. Interactive puzzles allow the user to piece together bones and muscles. Medical information is learned in an entertaining format.
(MAC OR WINDOWS CD-ROM)

• THE ANIMALS
(SOFTWARE TOOLWORKS
415-883-3000)
science/ages 7-adult

A unique library of animals from the San Diego Zoo on one disk. Students can learn about more than 200 different animals by visiting various locations at the zoo. Audio, movies, photos, and text are included to provide support for your interactive journey.
(MAC OR WINDOWS CD-ROM)

• CAPITOL HILL
(SOFTWARE TOOLWORKS
415-883-3000)
social studies/ages 12-adult

If you cannot afford to run for Congress, this can be the next best thing. Learn about being a freshman member of the House of Representatives; your office includes a telephone, budget book, and calendar—all of which can be explored with a click of the mouse. This easy to use CD also includes a game to quiz your knowledge after you have been in office.
(MAC/WINDOWS CD ROM)

• HOW COMPUTERS WORK
(TIME/WARNER
800-593-6334)
science/technology/ages 9-adult

This somewhat dry topic is brought to life in an interactive CD-ROM. In a format that is entertaining and motivating, learn about the inside of the computer. This title is a rarity in that it shows what a good piece of software can do to extend the capabilities of a book.
(MAC CD-ROM)

• HYPERCARD 2.2
(APPLE 800-800-APPL)
programming/software construction tools/multimedia/ages 11-adult

Students create cards that are linked to other cards in the creation of a multimedia type presentation. Text, sound, animation, and video can be combined to create software on any topic.
(MAC)

(Continued on page 11)

Software

Continued from page 10

- HYPERSTUDIO
(ROGER WAGNER
800-265-4797)
multimedia authoring toolkit/ages 8-adult

This package is an easier version of HyperCard produced by a different company. Programming architecture is not as advanced, but most users will be satisfied with the results they can achieve.
(MAC/Available soon in Windows)

- THE INCREDIBLE LABORATORY
(SUNBURST 800-321-7511)
science/ages 8-adult

Given a list of "crazy chemicals," students create a monster by choosing items from the list and adding them to a beaker filled with a bubbling solution. Through trial and error, users discover what each chemical will produce.
(MAC/IBM/WINDOWS)

- KING'S RULE
(SUNBURST 800-321-7511)
math/ages 9-adult

Critical thinking and mathematic skills are called upon as students journey in a castle to find a king. By generating and testing a hypothesis, rules are formulated that match a set of numbers. A fun and challenging format.
(MAC/IBM)

- MORGAN'S TRIVIA MACHINE
(MORGAN INTERACTIVE
800-245-4525)
science/geography/ages 7-14

This is a fast-paced game show that can be played individually or in groups. With more than 1000 questions, players participate in various amusing quiz show formats. Very entertaining and worthwhile.
(MAC OR WINDOWS CD ROM)

- MULTIMEDIA ENCYCLOPEDIAS
(*Groliers/Comptons/Microsoft Encarta*)
general learning/ages 7-adult

All three of these titles are excellent examples of what is possible with CD-ROM software. Not only do they include full text of popular encyclopedias, but sound and video are added to enhance the experience. Access to articles is quick and easy with many other interactive features included. Which one should you choose? Although the race is almost a dead heat, I give the nod to *Groliers* for being slightly more in-depth. Regardless, you cannot go wrong with any of the three.
(MAC AND WINDOWS CD-ROM)

- OPERATION FROG
(SCHOLASTIC 800-541-5513)
science/ages 9-18

Feeling a little uncomfortable about frog dissection? This program allows students to snip away and view frog body parts and systems, but then allows them to put it all back together so the frog can come back to life and jump off the screen. Simulates every major step of the frog dissection process.
(MAC/IBM)

- OREGON TRAIL
AMAZON TRAIL
YUKON TRAIL
(MECC 800-655-MECC)
history/problem solving/decision making/ages 10-adult

Through the use of various life-like simulations, each of these packages creates a time period and location, making you feel as if you are really there. Progress can be saved and each journey brings many situations that challenge the decision-maker.
(MAC/IBM/WINDOWS AND CD ROM)

- THE POND
(SUNBURST 800-321-7511)
science/ages 7-adult

Players identify a pattern of lily pads to help a frog navigate a pond. Teaches patterns, sequence, experimentation, and logic.
(MAC/IBM)

- SAFARI SEARCH
(SUNBURST 800-321-7511)
thinking skills/ages 3-adult

Students gather information and make inferences to reveal the identity of an animal hidden on the screen. Twelve different games develop a child's thinking skills.
(MAC/WINDOWS)

- SUPER MUNCHERS
(MECC 800-655-MECC)
general education/ages 8-adult

Working from a database of more than 250 categories, students "munch" the items that match the criteria (i.e. animals with hoofs). Levels of difficulty are chosen by the user and top scores are automatically saved.
(MAC/IBM)

- TIME TRAVELER CD
(ORANGE CHERRY
800-672-6002)

(Continued on page 12)

Software

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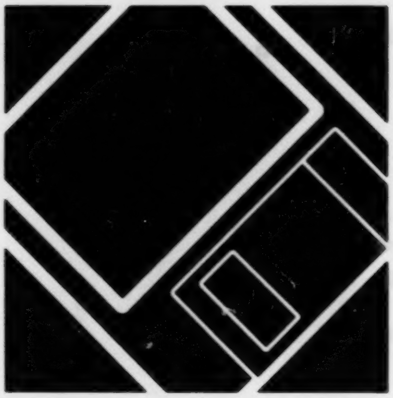
world history/ages 10-adult

Put yourself in the driver's seat of a time machine as you travel back through history. Read, listen, and watch as the events of the date you have chosen are brought to life. 6000 years of history are included. A great one for increasing interest in historical events.
(MAC AND WINDOWS CD-ROM)

- WHERE IN AMERICA'S PAST IS CARMEN SAN DIEGO?
WHERE IN TIME IS CARMEN SAN DIEGO?
WHERE IN SPACE IS CARMEN SAN DIEGO?
(BRODERBUND 415-382-4600)
social studies/geography/science/ ages 10-adult

These additional titles in this popular series provide new settings and clues for solving a crime. Very interactive with lots of reasons to do outside research.
(MAC/WINDOWS)

I hope this list helps you to sift through the continuously expanding software market; never before have there been so many enduring and enjoyable titles available.



Today, a myriad of opportunities for learning stand ready at our computer's doorstep, and it is our job to open the door. CD-ROM software is becoming the prevalent choice and offers some of the most exciting and interactive programs available. As the memory requirements of programs increase, we will see more and more titles showing up on CD-ROM versus the floppy disk, and with prices of CD-ROM drives as low as $200, now is a great time to open that particular door as well. So, sneak over to your favorite software store and start adding some of these outstanding titles to your technology library.

Gregory C. Pattridge, an instructor and technology facilitator for Jefferson County Schools, Colorado, is associate editor of ***Gifted Education Review***. He teaches nationally for Lesley College and University of Phoenix and is a consultant for gifted and technology education.

Surfing the Net

Continued from page 1

knew that gifted students, along with their teachers and parents, belonged there in the fast lane with me.

The Superhighway, or Internet, is the world's largest computer network, actually a global network of networks, that links together hundreds of thousands of computers, enabling them to share services or to communicate. The Reston, Virginia based Internet Society estimates the number of networks at 3.2 million; some estimates say that more than 25 million people travel the Superhighway (Personal communication, October, 1994). That's a bigger audience than most television programs enjoy! Each network is often comprised of tens of thousands of computers that share a common language called TCP/IP (Transmission Control Protocol/Internet Protocol). In the United States, the National Science Foundation Network (NSFNet) comprises the Internet "backbone," operating at a very high speed to connect key regions across the country.

Telecommunication, particularly the Internet, has profoundly changed teaching and learning during the past few years. If you have a computer, a modem, and some communications software, there is so much information available, and so many places to visit. Before you can start out, though, you will need to know something about the culture and language. This article offers some of the basics: how to get there (ways to connect), enough of the

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Surfing the Net

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language so that you can function (find a restroom and a meal), and something about the local customs and rules. Future columns will offer additional information on what's out there and how to get it, without providing a lot of technical advice because of what is widely available once you get started.

If you are going to spend much time on the Internet, you might consider purchasing a book. Most book stores carry a wide variety, and many others are available on the Internet. Once you are connected, you'll be able to retrieve them electronically. A good bibliography can be obtained by sending an e-mail message to:

LISTSERV@UBVM.CC.
BUFFALO.EDU.

Leave the subject line blank and send the following message:

GET NEWUSERS FAQ
NETTRAIN F=MAIL.

(If you prefer a printed copy, send your request with an SASE to Open Space Communications, Inc.)

GETTING CONNECTED— THE WORLD IS JUST A PHONE CALL AWAY!

Like most highway systems, the Internet has turnpikes and tollroads that link with public thoroughfares and interstates, and vehicles are owned and operated by those in the public and private sectors. A community of private and public network operators offer a wide variety of levels of connectivity and services. There are three primary ways to connect to the Internet, or "to get on the road":

1) a dedicated or direct connection (See box p. 6.)
2) dial-up using a modem
3) a gateway connection.

Dial-up using a modem (option #2) connects the user to a host computer that is attached to the Internet. At this level, the services available are limited by the software applications on the host computer. Most higher education institutions provide dial-up connections, as do many organizations and corporations. Publicly owned dial-up services include the numerous freenets that have become available during the past several years. These are, as the name implies, free to individuals who can dial a local telephone number. Services offered by freenets vary, but most offer e-mail and limited access to the Internet. The amount of time a user may take advantage of the service may be restricted. For example, the Cleveland Freenet states that users are limited to one hour. Check with your public library to find out if your state or city offers a freenet, or send a request with an SASE to Open Space Communications, Inc., for a list of freenets and public dial-up services.

Gateways (option #3) include commercial services such as America On Line, CompuServe, Delphi, GEnie, and Prodigy. Some of the privately owned commercial service providers are America Online, Compuserve, and Prodigy. Private services tend to be expensive, so if you decide to go that route, ask some good questions about their services.

Questions to Ask Connection Services Providers

- What connection services do they offer? Please describe in detail. (Make sure you know exactly what they're talking about.)
- How easy is the system to use? (If you're accustomed to a Mac or Windows environment, the more traditional DOS system might be a hassle.)
- What is the cost?
- What is included in the cost?
- Is there any other kind of charge not included in the up front cost?
- What are their support services?
- What software, if any, is available and are the instructions provided?
- What kind of support or help can you get from the system administrators? Do they have a local or toll-free help line? (This question may be the most important one of all, because some systems are not particularly user-friendly.)
- Are there limitations to connect-

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Surfing the Net

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ing to other parts of the Internet?

GETTING INFORMATION—THE WORLD AT YOUR FINGERTIPS

For many people, electronic mail is the primary reason to get on the Internet. Using e-mail, I communicate with my grown children, who are many miles away, and with colleagues across the United States; I receive a lot of useful information. And I don't have to wonder about whether the telephone company is going to send me a whopping bill at the end of the month! If you hate talking on the telephone, e-mail may be a solution to communication problems, and an added bonus is that the Internet knows no time or geographic boundaries. I live in Virginia, but I may decide to send a message to California or another country without regard to the time of day or night.

An e-mail address is made up of parts that include a user name and a domain name with information about the sender's site. It's easiest to understand if you read from right to left. American addresses end in an organizational suffix:

edu	academic institution
org	nonprofit organization
gov	government, or mil for military
com	business
net	companies or organizations that run large networks

Outside the United States, the suffix also contains initials that indicate the country (e.g., ca for Canada). Every Internet address contains an @ sign. If someone gives you an address and it doesn't include @, necessary information has been omitted. Most mailing systems don't care about upper or lower case, but there are always exceptions.

News and discussion groups are another primary reason to connect to the Internet. (We'll talk about those later in the series of articles.) But the *real* reason, at least for me, is the unbelievable amount of information available at various locations throughout the world. A virtual library of the world is at your fingertips. So let's talk about some ways to get that global information. Understanding the terms used is just as important as learning how to ask for a restroom in a foreign country, so this is also a language lesson. Most of the terms are from the *Internet Starter Kit* (Engst, 1994), or from information provided by my Internet account manager.

file sites or archives: computers on the Internet that are accessible to everyone and store thousands of the latest and greatest freeware and shareware computer programs.

file transfer protocol (FTP): allows files and software to be transferred and/or retrieved from another computer attached to a network. Anonymous FTP sites are computers that make certain files available to those who log-in an "anonymous" and give their e-mail addresses as a password. Files found at anonymous FTP sites include software, utilities, documents, and various group discussion archives.

telnet: allows connection to a remote terminal, an operation referred to as "remote log-in." The term is also used as a verb; e.g., to telnet to a site.

gopher: menu-driven software that allows users to search and retrieve information. More than 1,500 gopher servers exist at this time.

WAIS (Wide Area Information Servers): allows users to search and access different types of information. WAIS can select databases from an unlimited pool, without the user needing to be familiar with the internal configurations of each database, and it helps to organize responses on the user's machine despite vast amounts of accumulated data.

WWW (World Wide Web): A system developed in 1992 in Geneva, Switzerland as a network tool that would link full text documents. WWW supports text with fonts, sizes, and styles; graphics within the text, sounds, animations, and movies. WWW documents contain links to other documents.

SEARCHING FOR INFORMATION—FINDING WHAT YOU WANT

Because finding information on something as big as the Internet can be difficult without the right tools, what follows is a list of some of those tools. (I didn't make up the names.)

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Surfing the Net

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Archie: An Electronic Directory Service for the Internet. The term Archie originated when someone took the "v" out of the word "archive." People use Archie for scanning a database of the contents of more than 1000 anonymous FTP sites around the world. It's accessible by e-mail or telnet.

Veronica: Very Easy Rodent-Oriented Net-wide Index to Computerized Archives. Provides keyword indexing and access for menu offerings to different information systems on the Internet. To use Veronica, you simply find this utility and ask a question using key words.

Jughead: Jonzy's Universal Gopher Hierarchy Excavation and Display. Provides a way to search gopher menus for a local site.

USING ELECTRONIC MAIL—GETTING WHAT YOU WANT

If your only access to the Internet is e-mail, you don't have to miss out. If you can send a note to an Internet address, you can retrieve files from FTP sites, explore the Internet via Gopher, search for information with Veronica or WAIS or use any of the other tools we've discussed. But rather than use a lot of column space explaining how to accomplish these tasks, here are some instructions on how to retrieve "Accessing the Internet by e-Mail."

This document is now available from an automated mail server. To get the latest edition, send e-mail to the following address: (Note: This is the same address provided earlier, but the MESSAGE is different.)

To:
LISTSERV@ubvm.cc.buffalo.edu
(for US/Canada/etc.)
Leave Subject blank, and enter only this line in the body of the note:
GET INTERNET BY-EMAIL
NETTRAIN F=MAIL

You can also get the file by anonymous FTP at either of these sites:
At: ubvm.cc.buffalo.edu
cd NETTRAIN
get INTERNET BY-EMAIL
Or: mailbase.ac.uk
cd pub/lists/lis-iis/files/
get e-access-inet.txt

Electronic mail is one of the most common forms of Internet use by K-12 educators and students. E-mail provides communication with others and access to educational listservs. For some gifted students, e-mail is their only link to intellectual peers who are the same age. With a minimum of instruction, students quickly learn how to find others, conduct research, and take advantage of a wide variety of resources. Texts of files can be transferred through e-mail, facilitating the exchange of papers, reports, and resource materials for teachers, administrators and students.

Students using Internet e-mail and listservs should be provided with and observe basic rules of network etiquette. The following are taken from *The Core Rules of Netiquette:*

- Always remember that the one reading or posting mail is a human being with feelings.
- Know where you are in cyberspace; netiquette varies from domain to domain.
- Respect other people's time and bandwidth.
- Respect other people's privacy.
- Don't read the e-mail of others.
- Be forgiving of other people's mistakes.

(Shea, 1994. Excerpted with permission from *Netiquette.)*

THE INTERNET AS A RESOURCE FOR GIFTED EDUCATION

During my early days as a network newbie, I discovered some of the advantages offered by the Internet which have immediate and extremely important implications for gifted education.

a) Networking

Electronic communication provides unparalleled networking opportunities for teachers, students, and anyone with access. In particular, gifted students, their families and teachers can find peer support and encouragement from others who share their interests. This aspect is particularly important because in the past many G/T coordinators and other professionals have felt isolated.

b) Professional Development and Collaboration

An increasing number of universities have begun to offer undergraduate and graduate courses via Internet. Students pick up as-

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Surfing the Net

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signments and may work in teams using the Internet as the means of communication. Other opportunities for professional development include electronic journals; recently a national education organization provided a virtual conference via Internet. This expanded ability to communicate offers important new sources for professional collaboration.

c) Relationships
Students may communicate directly with intellectual peers. Introverted students may find it easier to relate to others via electronic communication.

d) Involvement with Mentors
Students may interact directly with the people behind the resources in a way never before possible.

e) Enrichment
If a student is serious about wanting to research something in depth, information, advice and a multitude of viewpoints are readily available. The availability of resources is unequaled.

f) Motivation
Students become active participants in seeking information, rather than passive recipients. They may ask for and receive instantaneous feedback from others; electronic communication breaks down all the barriers related to geographic distance and time.

g) Distance Education
The newest resource available via Internet helps fill the void discussed earlier and provides additional resources for home schoolers. Not only are colleges offering courses by Internet, but also courses specifically designed for grades K-12 are available or in the planning stages. For example, The Educational Program for Gifted Youth (EPGY) is a continuing project at Stanford University dedicated to developing computer-based courses in mathematics and the mathematical sciences, and making these courses available to very bright students in grades K-12 by offering them through the Stanford Continuing Studies Program via Internet. (By the way, this is the answer to one of the questions listed in the first paragraph of this article.)

h) Collaboration through Listservs
A listserv is a discussion group of people who share common interests. People subscribe to listservs of their choice and send and receive messages. Gifted education offers two listservs at this time: GiftedNet-L, sponsored by the College of William and Mary in Williamsburg, Virginia, and TAG-L, sponsored by NoDak. Several other listservs are specifically designed for student messages. My column will provide instructions for subscribing to these listservs.

In my column in the next issue of *Understanding Our Gifted* I'll offer specific suggestions for locating Internet resources that might interest gifted and talented students, their families and all the professional educators who work with these young people. I'll also tell you where to find good online Internet courses. Meanwhile, if you have specific questions, write to me in care of *Understanding Our Gifted.* In addition, if you are an experienced Internet user and you have some favorite haunts, let me know; I'll include them with names of contributors.

And....maybe we'll meet on the road.

REFERENCES

Engst, A. (1993). *Internet starter kit for Macintosh.* Indianapolis: Hayden Press.

Gaffin, A. & Electronic Frontier Foundation. (1994). *Big dummy's guide to the Internet.* Available by anonymous ftp from ftp.eff.org, directory /pub/Net_info/Big_Dummy, filename bigdummy.txt.

Internet Society, 12020 Sunrise Valley Drive, Suite 270, Reston, VA 22091-3429.

Rankin, B. (1994). *Accessing the Internet by e-mail.* Available by anonymous FTP from ubvm.cc.buffalo.edu, cd NETTRAIN.

Shea, V. (1994). *The core rules of netiquette.* San Francisco: Albion Books. P.O. Box 590594, San Francisco, CA 94159, info@albion.com.

The ideas expressed in this article are the author's, and do not necessarily represent the views of the Council for Exceptional Children or the ERIC Clearinghouse on Disabilities and Gifted Education (OERI/DOE).

Sandra Berger is the Information Specialist for Gifted Education at the ERIC Clearinghouse on Disabilities and Gifted Education in Reston, Virginia. She has long been involved in gifted education as a citizen activist, advocate, consultant, presenter and is the author of ***College Planning for Gifted Students.*** Sandra has been an active participant in CEC's Javits Project and has played a critical role in establishing and disseminating electronic resources for the gifted on the Internet.

In Search of Serendipity

Creative Ventures & Encounters

Jerry Flack
Tour Guide

An Armchair Trip Through an Illustrators' Museum

In a recent column, I wrote of the beauty found in the illustrations of Peter Catalanotto and suggested that many of today's most creative picture books for youth serve as portable art museums to be enjoyed in both the classroom and at home. In this column, I offer three additional resources that serve not only as stand-alone books of considerable merit but to introduce young readers to the varied creative styles of many of our best contemporary illustrators.

One of the most prestigious books of 1993 was Amy Cohn's *From Sea to Shining Sea: A Treasury of American Folklore and Folk Songs*. In one volume Cohn has gathered together a remarkable tribute to American folk literature, all of it illustrated by this country's premier contemporary illustrators. Traditional classics from Henry Wadsworth Longfellow's "Paul Revere's Ride" to modern favorites including Bob Dylan's "Blowing in the Wind" are accompanied by magnificently rendered works of artists who number among themselves the winners of 15 Caldecott Medals and Honors. (The Caldecott Medal is given annually by the American Library Association to one illustrator for the "most distinguished picture book for children published in the United States.") Anita Lobel depicts songs and poems of the American Revolution, while Jerry Pinkney's beautiful paintings interpret the songs, stories and poems of African-American traditions. Barbara Cooney gives us the sod houses and tent cities in celebration of the pioneer experience in 19th century America, and Ed Young, in tempera and oil pastel, creates eerie scenes to accompany some scary American ghost stories. *From Sea to Shining Sea* presents much more than illustrated lessons in folklore, history and art; this handsome book is a truly wonderful celebration of the American Experience.

Sing a Song of Popcorn takes its name from the first line of Nancy Byrd Taylor's poem "A Popcorn Song." All of the poems included in this anthology were chosen especially for their "read aloud" potential, providing parents and teachers a means of facilitating the love of poetry in young children. Ten Caldecott medalists, including Marcia Brown, Leo and Diane Dillon, Trina Schart Hyman, Arnold Lobel and Maurice Sendak, illustrate the more than 100 works by Carl Sandburg, Shel Silverstein, Christina Rossetti, Langston Hughes and a host of other bright literary names. The poems are grouped into nine thematic divisions, "Mostly Weather," "Fun with Rhymes," and "Story Poems," for example, with each of the Caldecott medalists illustrating a different section. Among the many fine offerings, Marcia Brown, who won the Caldecott for her 1953 version of *Cinderella*, creates beautiful images for poems of weather; and Maurice Sendak conceives fantastic scenes for story poems such as "The Gingerbread Man," with Trina Schart Hyman contributing

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Armchair Trip

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humorous and delightful drawings to accompany 10 rhyming poems.

The Big Book Our Planet combines the words of America's finest children's authors with the work of its foremost illustrators. Writers such as Aliki, Jane Yolen, Patricia MacLachlan, Jack Prelutsky and Lois Lowry find their words enhanced by the artistic talents of Susan Jeffers, Paul O. Zelinsky and Chris Van Allsburg. This anthology's poems, stories, and articles celebrate the earth and speak passionately to children about the critical importance of humanity's stewardship of it. Tomie dePaola writes and paints an ode to St. Francis of Assisi and his message of love for the animals of the earth. Susan Jeffers' luminous painting perfectly complements Jane Yolen's paean to earth, "Oh World, I Wish." In "Close Encounter," Aliki communicates a message to humanity from a dinosaur: **Save this planet!** And, David McPhail brings his famous pigs to readers' attention in a series of poems called "Pigs on Patrol." All proceeds from the book benefit six environmental organizations, among them the Nature Conservancy and the Children's Rainforest USA.

REFERENCES

Brown, M. (1954). *Cinderella.* New York: Charles Scribner's Sons.

Cohn, A. ed. (1993). *From sea to shining sea: A treasury of American folklore and folk songs.* New York: Scholastic.

de Regniers, B.S. ed. (1988). *Sing a song of popcorn.* New York: Scholastic.

Durrell, A.; George, J.C.; & Paterson, K. eds. (1993). *The big book our planet.* New York: Dutton Books.

Jerry Flack is a President's Teaching Scholar and Professor of Gifted Education at University of Colorado, Colorado Springs, and author of several books, including ***Inventing, Inventions, and Inventors*** and ***Lives of Promise.***

Sampling of Current Internet Projects in Education

Ask the Scientist: Grade school students submit science questions to AP classes.

CoSN News: The Consortium for School Networking (CoSN) is a membership organization of institutions formed to further the development and use of computer network technology in K-12 education.

Kids Weathernet: The purpose is to bring together as many classrooms as possible in a joint sharing of weather and climatic data.

The Reynoldsburg Geography Project: After exchanging a few letters, the student will then be instructed to learn as much as possible about the other student's country through research.

Longest Day of the Year: Comparing duration of longest solar day against longitude and latitude varied locations.

Global Grocery List: Students compare prices of common items around the world.

TeleOlympics: Students compete in events locally and then the best are matched electronically against the best students from all around the world.

KIDLINK: Global dialog for kids 10-15. Communicate with children from other cultures.

Project IDEALS: Students are cast as high level negotiators discussing international problems in this role playing simulation designed to encourage student awareness of world events.

Big Computer Pals: Big Brother/Sister interaction across the networks aimed at the handicapped.

Ozone Study Networking Project: World-wide ozone measuring and study.

An Acid Rain Study: International comparison of rain and stream acidity.

Antenna

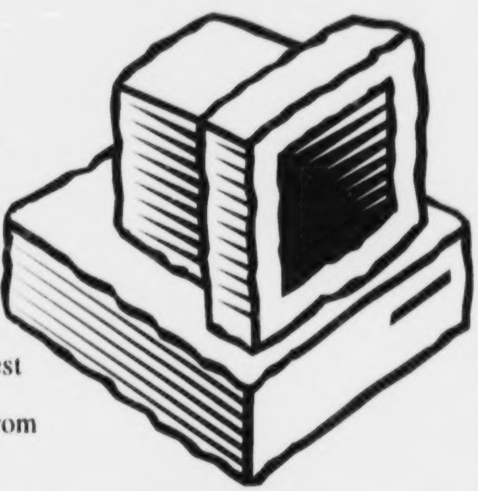
Current Developments

Remember your first hand-held calculator or microwave oven or FAX machine? Did you say, "That's nice to have, but I won't use it very often"? And now, without these electronic wonders, could you prepare your bank deposit or heat leftover pizza or receive vital information from another country an hour before deadline?

A few years ago—in this column—I confessed that I first wrote down my thoughts on paper and then transposed that information to the computer. Fortunately, my technological acumen has improved to the point where I sit easily at my computer desk—or curl up with a laptop—and formulate ideas on the screen instead of a legal pad. My latest accomplishment—using the Internet—brought accolades from my grown sons (via FAX and modem, of course): "Mom, you are computer literate!"

I use e-mail to communicate, both personally and professionally. But with my technical ability comes a disease endemic to my generation—cyberphobia. While "surfing the net," I'm constantly in fear that I'll look like a computer imposter. Or worse yet, I could end up in cyberspace, deleted forever.

Our children don't know this fear because they have grown up with technology as their primary source of information and entertainment. We adults had been aware of the importance of preparing our children—particularly our gifted—to utilize technology to its fullest and to enter careers we had not yet heard of. Youngsters are certainly not afraid to use computers, and, when they experience a glitch, they just start again.



These kids travel the "Information Superhighway" as naturally as I read a book. They will work in the paperless offices of the 21st century. And someday, they will probably generate ideas on their wristwatch computers.

Meanwhile, please excuse me while I surreptitiously make a hard copy of this column on the laser printer. That way, I won't panic if the hard disk crashes.

Dorothy Knopper is a private consultant for gifted education in Colorado, author of ***Parent Education: Parents as Partners***, and publisher of ***Understanding Our Gifted***.

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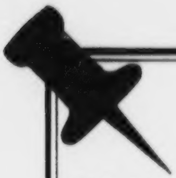

The Bulletin Board

This space is for you!

This section serves parents, teachers and non-profit groups. We will print your announcements as space permits.

Winter Conferences
Open Space Communications presents its second annual conference, **Beyond Giftedness II, "Parents, Teachers, Kids as Partners in Education: Challenges/Problems/ Solutions.** February 24, Arvada Center for the Arts & Humanities, Colorado. (303)444/7020, FAX(303)545-6505.

New Jersey Association for Gifted Children. March 3-4, Princeton, Maryellen Moffitt, (908)298-3354.

Nebraska Association for the Gifted. February 23-24, Lincoln, Kay Corell, 4510 Eastridge Dr., Omaha 68134.

Cherry Creek Exceptional Students Conference. January 27, Denver, CO, (303)486-2620.

North Carolina Association for the Gifted/Talented. March 16-18, Winston-Salem, Dennis Carroll, (910)724-5300.

California Association for the Gifted, March 3-5, Oakland, Dottie Henson-Parker, (909)397-4851.

Washington Association of Educators of Talented & Gifted. March 16-18, Olympia, Katherine Schultz, (206)846-8544.

Next Issue:

Focus:

RECOGNIZING GIFTED YOUNG CHILDREN

Guest Editor:
Joan Franklin Smutny

Portfolio Assessment
Bertie Kingore

Creating Positive Learning Environments
Beverly Shaklee

Recognizing Early Talent
Joan Franklin Smutny

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January/February, 1995

Volume 7, Issue 3

Portfolios for Young Children

Bertie Kingore

> *Portfolios! We have to do portfolios? My children will never be able to do that! What do I do? Where do I start?*

This teacher's reaction is typical of many early childhood teachers who have never used portfolios with young children. Their first response is often an overwhelming feeling of frustration and even annoyance for being asked to do something they do not understand or value for their class. However, nation-wide, this novel approach is enjoying success in schools and preschools as a means to celebrate the work of students of all ages and validate their learning. In order to see that an enterprise like this can work and how to implement it, it seems teachers just need more information.

A portfolio may be defined as a systematic collection of student work, selected largely by that student, to provide information about his or her attitudes and motivation, level of development and growth over time (Kingore, 1993). Most of a child's work goes home on a regular basis and

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FOCUS ON:

RECOGNIZING GIFTED YOUNG CHILDREN

GUEST EDITOR
Joan Franklin Smutny

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Early Gifts, Early School Recognition

Joan Franklin Smutny

If a tree falls in a forest and no one is there to hear it, does it make a sound? In today's landscape of gifted education, this age-old question renews itself, and the urgency of its answer is intensified.

As formal gifted education programs are cut back, whether by choice or by dictate, we can pose the falling-tree question, adapted to one of our precious and increasingly threatened natural resources, gifted students: When our schools eliminate gifted programs, does that mean there are no gifted children in our schools? Parents and teachers of young gifted children know the obvious answer. Regardless of current social, political and educational trends, gifted children, their extraordinary potential and their special intellectual and emotional needs, remain *quite* real and very present.

One Illinois school district typifies the current national trend towards the thinning of differentiated gifted programming. At the elementary level, this district at one time included a gifted education coordinator, an identification process, a pull-out program for identified

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PROLOGUE

"I hate being young!" exclaims 5-year-old Audra. The kindergartner had filled out an order form for personalized bank checks and asked her mother to mail it for her. When she is informed that she is not old enough to have a checking account, Audra lashes out against the unfairness of being young in an adult-oriented world.

It's very frustrating for this gifted little girl to be limited by her 5-year-old body when she has the intellectual capability to participate in the challenge of grown-up experiences. The unevenness in her cognitive, physical and emotional development has already begun to confuse and limit her. Parents describe such youngsters as miniature adults, and teachers struggle to provide appropriate curricula.

With Audra in mind, we focus this issue on the critical topic of early recognition of the gifted. As Director of the Center for Gifted at National-Louis University, Joan Smutny interacts each year with thousands of gifted children, age 4 through 11th grade, participating in summer and weekend programs throughout the Chicago area. As Guest Editor, Joan combines her experience and insights with Bertie Kingore, who effectively describes portfolios and their value for young children; and Beverly Shaklee, who shares her perceptions on the nature of positive learning environments at home and school.

Susan Winebrenner joins us as a regular columnist, encouraging parents and teachers to work together to meet their gifted students' learning needs. Gerri Masson contributes to this issue's "Tactics" column with strategies for visual/spatial learners.

We appreciate the continuing feedback and make every effort to incorporate your needs into the content of ***Understanding Our Gifted.*** Enjoy the journal!

D.K.

Tactics

Through the Visual Channel

By Gerri Masson

As our environment becomes increasingly oriented toward visual information processing, it is not surprising to find that increasing numbers of children, a great many of them gifted, tend to learn best through the visual channel.

Common sense might suggest that the way to access the visual channel is through the eye, that gifted visual learners would need to see things written down as well as spoken and that for them models and pictures would be a most effective means of learning. The physical eye, the written word, models and pictures, all are indeed powerful tools, but when it comes to making the most of learning through their visual strengths, the truest route to success for this particular variety of bright children is through visualization or "the mind's eye."

In our practice, working with gifted visual-spatial learners who find success in school to be fleeting, we've observed much that is interesting about these children; below are specific strategies we've discovered that have proven beneficial for them:

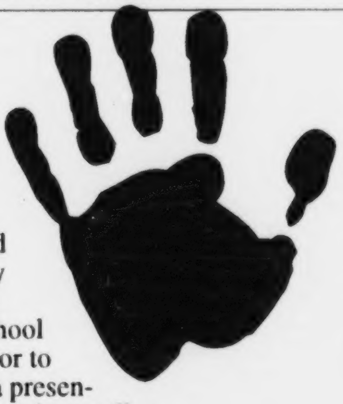
1. When information is presented, the modality used isn't important. A primarily spoken lesson can become visual if it's rich in imagery and creates a mental movie.
2. The use of highly visual imagery through a carefully constructed metaphor can be as powerful as a first-hand visual experience.
3. Simulation used to create an experience of a concept in the mind's eye will almost invariably be totally remembered.
4. The use of templates — any method, computerized or physical, that results in creating verbal logic into a structural form — greatly assists and enhances the visual process.

We know that, all things being equal, the gifted are imminently capable of handling most any work encountered in school today. But, of course, all things are seldom equal. Visual thinkers approach situations from a divergent starting point and operate from a divergent model, and it is the novelty of that approach and method within the educational setting that may cause trouble.

"Minds," gifted or not, are smarter than brains. Think about it. It's why virtual reality is so good; the brain can be convinced and the body will believe. As I sit in a seat at Disney World's Star Wars ride I believe I'm moving, accelerating; my stomach does a fast-elevator drop, but I haven't gone anywhere. It's a sensory illusion. My mind understands that my brain has been fooled. We can use this kind of information to help those divergent, visual gifted students find alternative

(Continued on page 16)

Barbara Mullins



Parenting

Identify Early!

Asked by my son's preschool director to give a presentation to her staff about the importance of identifying gifted preschool children, I gladly agreed. As she well knew, the timing was perfect since we had come to appreciate the enormous importance of doing just that. Our son entered 1st grade this year, skipping kindergarten, because of, in part, the preschool director's encouragement and help and our own efforts in preparing for his school entrance.

I began the preschool presentation by passing out different colored paper shapes and asking the staff members a string of simple, obvious questions: *Who has a green shape? What shape is it? How do you know that?* By asking them these easy and seemingly endless questions, I hoped they might better understand how gifted children feel when they are constantly asked to perform at a level far below their capabilities. What is easily understood intellectually I wanted them to **feel**, and as I expected, it wasn't long before they became bored and began wondering why I was wasting their time. I explained that many gifted children will not fit a teacher's typical, preconceived notion of children who are bright, eager to please and show their knowledge. When confronted with both content and questions that are so obvious, few gifted children are inspired to show what they know.

To begin, I told the teachers, parents are the ones with the earliest and deepest understanding of their child, and they must acknowledge what they know about him or her. After that comes affirmation from others, preferably early on in preschool or other early childhood settings, perhaps through professional evaluation. Some parents choose to wait until someone else "sees" what they do when the child is in elementary school; this approach is potentially damaging as, in many cases, gifted children are never identified in school or turn up as behavior problems. Parents know their children as educators cannot and must act as both advocate and interpreter for their young ones, and then find the support needed to validate their view and ensure the right educational fit. Though it requires considerable effort, finding or fashioning an appropriate educational setting, based on plenty of reliable information, is much easier than trying to fix an unhappy situation a year or two down the road.

How did that preschool presentation turn out? The staff, having put down those bits of colored paper, opened their hearts to me and listened.

Happily for our family, our efforts paid off and we have a success story to share. After accumulating all the information necessary to accurately present our son's case and after finding a school setting that offered flexibility, hands-on materials and small class size, we asked for him to be placed in 1st grade. Based on parental conferences, a review of his portfolio and meetings with and classroom observations of our son — all providing a combination of essential information on his social/emotional as well as academic readiness, the school staff agreed. They met us halfway in their willingness to listen, work with us and consider nontraditional assessment of cognitive abilities, such as abstract reasoning, critical thinking and problem solving. And we have developed a positive parent/teacher partnership which has formed a foundation for successfully meeting our child's advanced needs.

If only all parents would trust what they know about their gifted children, act on that knowledge early, then use the information to make good choices when their children are first entering school, and if more schools and educators were willing to come halfway to hear what parents know and work with them, there could be many, many more stories with happy endings. For us, sound judgments and good decisions have resulted in satisfied parents and teachers and, best of all, a happy and well-adjusted little boy.

Barbara Mullins, an education manager in St. Charles, Illinois, is the mother of two gifted children.

Sandra Berger

Surfing the Net

On The Road Again

The Internet is a rapidly changing resource. Most of the resources mentioned in this column are thought to be "stable," but you never really know. Site managers constantly strive for improvement, and their decisions may affect the pathways or Internet addresses provided here.

As we get started, I'm assuming that in most cases you have a good Internet guide and are familiar with your equipment or know how to get help from your system administrator. I'm also assuming that you know "gopher" is both a furry animal and a term that refers to a menu-driven system of getting around the Internet. (If you have a full Internet connection and still don't have gopher, you don't know what you're missing. Tell your system manager to install the free software or forever be swept aside by the unceasing waves of progress!)

Networking on the Net

In January and February, 1994, the National Center for Education Statistics, the NASA K-12 Internet Project, and the National Science Foundation jointly sponsored an essay contest open to all U.S. students from prekindergarten to 12th grade. In their essays, entitled, "Networks: Where Have You Been All My Life?" students were asked to describe their most significant learning-related telecommunications experience. Students were divided into four groups: prekindergarten through 3rd, 4th through 6th, 7th through 9th, and 10th through 12th grades. A winner and a varying number of runners-up in each group were chosen, and the winning essays were published on the Internet. These essays are located at <quest.arc.nasa.gov>.

The winner in the prekindergarten-3 group, Marcus, a 6-year-old Maryland student, talked about his new Internet friends in Tasmania, England, Finland, Russia, and the Netherlands. In describing his Tasmanian friend, Marcus said: *Glenn is not in school right now because it is summer and he's asleep right now anyway. We are having winter and it is cold here, but not where Glenn lives...My messages go through that thing over there called a modem...It goes to the big network like a post office through the telephone wires. My letters get there fast.*

Jennie, winner in the grades 4-6 group, lives in New Jersey, and her entry reflected her passion for telecommunications: *I am very involved in computers, and I think telecommunications is the best thing that ever happened in the history of computers. Sure, you can stand there and teach a lesson on math or any other subject, but that is just like eating burned steak. However, the telecommunications project I took part in at school gave me an idea of just how advanced America actually is. I actually heard about the revolution [in Russia] before the news media.*

Marcus and Jennie are part of the large group of students learning about the world through the eyes and words of students from other countries. They, and countless others across the United States, are finding ever-increasing means of communicating. The many Internet projects out there demonstrate a significant collaborative component in which people continuously ask for and provide information and frequently invite others to participate with them. If you're having trouble finding a particular project, you might send a message to one of the lists mentioned below and ask if anyone knows the location. E-mail is the primary means of Net-wide communication, but it may also be by ordinary mail, FAX, video conferencing or ham radio. There are many different organizations and listservs that facilitate communication and link classrooms and students throughout the world.

Networking Resources

The primary method of communication with groups on the Net is by way of listserv lists. A listserv is an automated mailing list, kept on a computer. You put your own name on the list by sending a "Subscribe" message, receive mail that has been sent to the list, and remove your name when you no longer want to receive mail from that list. You alone choose the topics you're interested in, and you subscribe to only lists you want to explore. In May, 1994, Beverly Hunter asked three listserv lists (Kidsphere, COSN, and NII-Teach) where teachers find projects. The responses are categorized, summarized, and available by Gopher.

Gopher digital.cosn.org
Directory COSN Activities/
COSNDISC/COSNDISC Topics

Computer networking is highly

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Gloria Frender

Learning To Learn

Learning Modalities

Make Sense of Your Learning

We've considered recognition of left and right brain dominance and its importance in identifying individual learning styles. Towards our goal of increasing capacity and the ease of learning, let's take another step in understanding how the brain works. In addition to an inherent hemisphere preference, each person's brain naturally opts for the use of one of three learning modalities: visual (learning by seeing), auditory (learning by hearing), or kinesthetic (learning by feeling and doing). Eyes, ears and touch play essential roles in the way we perceive reality, communicate and relate to others. Often, gifted individuals have highly developed and sensitive modalities and can accurately predict their dominant sensory use in learning, storing and recalling information. Although most people use all senses in learning, one (or two) usually predominate.

Students should be encouraged to explore various learning modalities and strategies and to understand that what they find through that exploration can be honed into some very useful tools. When faced with challenging learning situations, when their first attempts are not successful or when they find themselves "stuck," these self-made tools can be used to help meet the challenge, build towards a subsequent success or shake free of a sticking place.

By using as many senses as possible when studying, information is retained longer and study time is more efficient and effective. The following list of multisensory process activities offer some active-learning ideas. You might suggest to students that they:

1. recognize, adapt and integrate appropriate activities for the dominant learning modality based on the information contained in Table 2.
2. intentionally use multiple senses and make all learning active. Remind them to HEAR IT, SEE IT, SAY IT, WRITE IT, DO IT all at the same time when possible. For example, instead of silently reading and rereading names and dates on a page (passive learning), a student might talk aloud while writing them down, illustrate the names with faces or act out some identifying trait, then follow-up by repeating them twice more (active learning).
3. be flexible; try other modality strategies. If a student's usual method is talking to herself and it isn't working, then she might try writing, making lists or physically moving around while talking to herself.
4. teach the information to others, combining specific visual, auditory and kinesthetic strategies, again from Table 2.
5. analyze a teacher's teaching style and, if necessary, adapt or change the presented information to best fit the preferred learning modality. For example, a high school student, who is a visual

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Visual	Auditory	Kinesthetic
mind sometimes strays during verbal activities	repeats orally, talks to self	likes physical rewards
finds verbal instructions difficult	has difficulty with written information or instructions	in motion most of the time
memorizes by seeing graphics	memorizes by steps in a sequence	enjoys doing activities
remembers faces	remembers names	reading usually not a priority
solves problems by drawing them out	solves problems by talking through them	solves problems by physically working through them
enjoys reading	whispers while reading	uses hands while talking
dresses and organizes things for appearance to others	enjoys being read to	dresses and organizes things for comfort
notices details	is easily distracted by noises	quickly responds to doing something

Table 1

Learning Styles

Continued from page 6

learner, has a history teacher who lectures. The student takes the best notes he can and then later draws out diagrams and makes charts or graphs, using color and illustrations when and where he can incorporate them, in order to capitalize on his visual learning preference and strengths.
6. be aware of the time and environment in which learning best occurs. A 3rd grader who's trying to learn her 12 spelling words at the kitchen table while dinner is being prepared, the news is on the radio and a younger sibling is talking might have much greater success in a shorter amount of time, after dishes are done, the sibling is in bed and the house has quieted down. Television, radio, food, the comfort of bed can all be major distractions to the mind, sending the brain mixed messages rather than allowing it to focus on the work at hand.

Following are suggestions that will help to improve a dominant learning modality and/or strengthen a weaker one. Whenever possible, a combination of activities from each area will increase overall learning power.

Visual	Auditory	Kinesthetic
form pictures in your mind	make tapes	pace or walk while learning
take notes	talk while learning	physically "do it"
use notebooks and color code to organize	make up rhymes or poems	practice by repeated motion
use study cards	read aloud difficult material	write information repeatedly
use charts and graphs	repeat things orally	trace out information with fingers
"draw out" problems to solve	intend to listen from beginning	take frequent breaks
see parts of words for vocabulary	use oral directions	role play
make lists	say words in syllables	link information with physical actions

Table 2

Creatively adapting and combining visual, auditory and kinesthetic modalities provide gifted learners with powerful strategies to learn faster with greater depth of understanding.

Gloria Frender, a nationally known educational consultant from Boulder, Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the mother of two gifted children and author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use***.

Surfing the Net

Continued from page 5

dynamic, and new services spring up almost daily. This short list includes resources that are well established. I hope you'll use them as a springboard for exploring new territory.

KIDLINK
KIDS-95 (sm) is a grassroots project aimed at getting children in age group 10-15 involved in a GLOBAL dialog. KIDLINK (sm) is the name of the organization that runs the yearly KIDS-nn projects. The KIDS-95 project runs from May 8, 1994, until May 6, 1995, when the KIDS-96 project will begin. Since the start in 1990, the projects have had over 30,000 participating children from 65 countries on all continents. To learn about KIDLINK projects, and keep current about important developments, subscribe to the KIDLINK announcement service. You do this by sending an e-mail message to:
LISTSERV@VM1.NODAK.EDU
with the following command in the TEXT of your message:
SUB KIDLINK Your-first-name Your-last-name
Please use your real name, not a computer name, or "Your-first-name Your-last-name." Also, be sure to avoid the use of signature blocks because they'll confuse the robot that automatically adds subscribers. And please note—If you

(Continued on page 18)

Beverly D. Shaklee

Creating Positive Learning Environments:

Young Gifted Children at Home and in School

Looking out the kindergarten classroom windows one day, Jennifer remarked, "Look, look, it's snowing. You know what? A hexagon has six sides — a snowflake is a hexagon! Hey, when you fold a hexagon in half, you get a trapezoid, and trapezoids are one of my favorite shapes." Jennifer was clearly excited by her discovery and her favorite shapes.

As a parent or teacher, every time you listen to a Jennifer or watch your own child make an exciting discovery you may ask yourself, *Am I providing the right environment? Is it challenging enough, too stressful; what should I be doing?* The purpose of this article is to provide an overview of environments, activities, instructional practices and curricula which foster a young gifted child's curiosity and interest in life-long learning.

Positive Learning Environments
What do we mean when we say each child should be nurtured in a positive learning environment? What characterizes a positive environment? How do adults contribute or detract from a young gifted child's natural curiosity? A positive learning environment is one that fosters the natural curiosity of a young child, focuses on both developmentally appropriate and inter/intra-individually appropriate activities and is created by responsive knowledgeable, caring adults.

Knowledge of Development
The first important element in creating an appropriate learning environment is knowing about young gifted children. Teachers and parents need to look beyond their own experiences with typical children and become familiar with the asynchronous development of gifted children as well as specific educational implications for them. Knowledge of attributes of giftedness, barriers to success, resources, appropriate expectations, all figure in the creation of a successful educational situation. This isn't to say that knowledge of children in general, and specific individuals in particular, isn't helpful in understanding young gifted children, but having more in-depth information about this complex population helps to create balanced perspective, recognize common areas of concern and work toward proactive solutions. While much of what is best about gifted education has been borrowed from early childhood educators (Eby & Smutny, 1990), early childhood educators have not always looked carefully at the research on young gifted children. It is vitally important that all who live and work with young gifted children become knowledgeable about each child's intra-individual attributes.

Nuances of Development
Awareness of concepts such as developmentally appropriate (Bredekamp, 1987), inter/intra–individually appropriate and "hands-on" activities is key to the fashioning of appropriate environments. We know that young children create their knowledge and understandings of the world through active engagement in the learning environment (Spodek & Saracho, 1994), which means that all young children need mobility, hands-on experiences, time to examine-demolish-rebuild both physical and mental constructions, and opportunities to discuss, understand and move forward in their thinking. Little ones need time to "mess" with ideas and objects. They need time to make sense of their world. We know that their process does not follow a linear sequence; they do not master skills and abilities in convenient, adult fashion. Young children, including gifted children, exhibit developmental advances, delays and typical age-appropriate behaviors (Roedell, 1986). Always interesting, this makes our jobs as teachers and parents somewhat more complex.

Jacob, is sitting with his preschool teacher in a small group, working on number recognition. When it's Jacob's turn to say a number, he replies, "That's an 8. Oct is the word that means 8, and that means an octopus has 8 legs, an octagon has 8 sides, and an octave has 8 notes. So, why isn't October the 8th month?" While Jacob is developmentally advanced from a cognitive perspective, he does not, and would not be expected to, demonstrate developmentally advanced attributes in all areas (e.g., he is age-appropriate in his eye-hand coordination and likes to play tag with his age peers). What does this mean in terms of learning? For parents and educators it means that we must nurture Jacob's thinking ability by extending our questions, reading to him to find answers and accepting and affirming his responses. Depending on the goals for small group participation (e.g., socialization vs. knowledge acquisi-

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Environments

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tion), it may mean that Jacob should not be in the number-recognition group at all. It does not mean that we would expect him to write a book about what he knows (unless he wants to), create a project or use his age-appropriate physical skills in an advanced manner. It does mean that we must be sensitive both to his developmentally appropriate 4-year-old behaviors *and* to his intra-individual attributes which, in this case, are cognitively advanced. Jacob might enjoy a foray into the pages of a dictionary, with an adult reading if he cannot, to learn that his observations and question were right on the mark: October was indeed the 8th month on the Roman calendar.

An environment that is *only* structured to be developmentally appropriate and ignores the inter/intra–individual differences that children exhibit is neither a sound nor positive educational experience for young gifted children. Nor is it appropriate for educational activities to be strictly focused on socialization skills without attention to cognitive development. Instead, we must balance our offerings. As Eby & Smutny (1990) note, when young gifted children are allowed to select activities independently, they seldom select activities that are too difficult. Observant parents or educators provide a wide variety of offerings, some of which are age-appropriate and some of which are individually appropriate, and allow children to choose those with which they are most comfortable.

Instructional Activities

What about direct instruction? you may be asking yourself. *Should I be teaching my child to read?* All young children have a developmental readiness to learn, which is probably the most important thing to remember when selecting activities for young gifted children. If activities or specific content is offered to a child who is not ready to absorb and process the information, he will either ignore it, become frustrated by it or, perhaps, struggle with it to please adults. Parents and educators who hold inappropriate expectations for young gifted children (e.g., too high or too limiting) place these children in jeopardy. By setting adult agendas we forget that bright young children are young children first and bright second (Eby & Smutny, 1990). Flash cards to teach letters, words or numbers should not be used to prompt learning. Rather, active experiences with words (e.g., acting out or telling stories) and numbers (e.g., making cookies and counting them) should be the focus of our efforts. Further, young gifted children should be actively involved in experiences which call for inquiry, spark curiosity (e.g., mystery boxes), require a variety of responses (e.g. "What are all the ways we could end this story?"), and nurture collaboration (Bredekamp & Rosengrant, 1992; Saunders & Espeland,1991). Silverman (1986) speaks of this difference in parenting (and I would say in teaching, too) as the difference between being a "creator parent vs. responsive parenting" (p. 84). A responsive parent is one who acknowledges the importance of high but appropriate expectations and encouragement while being careful not to pressure the child to perform. Silverman says the difference is in the degree of emphasis, with a creator parent wanting performance at all costs (regardless of emotional well-being) and the responsive parent communicating to the child that she is loved regardless of performance.

Children will tell us what we need to know to provide them with positive learning environments, if only we will stop to listen and observe. We must strive to be attentive to and knowledgeable of the developmental and inter/intra-individual needs of the young gifted, to be appropriately encouraging and to provide flexible and active involvement in their learning process.

REFERENCES

Bredekamp. S.(Ed.)(1987). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8.* Wash., D.C.: NEAYC.

Bredekamp, S. & Rosegrant, T.(Eds.)(1992). *Reaching potentials: appropriate curriculum and assessment for young children, vol. I.* Wash., D.C.: NAEYC.

Eby. J.W. & Smutny, J.F. (1990). *A thoughtful overview of gifted education.* New York: Longman.

Roedell, W. (1986). Socioemotional vulnerabilities of young gifted children. In Whitmore, J. (Ed.) *Intellectual giftedness in young children* (pp. 17-30). New York: Haworth Press.

Saunders, J. & Espeland, P. (1991). *Bringing out the best: A resource guide for parents of young gifted children.* Minn., MN: Free Spirit.

Silverman, L.K. (1986). Parenting young gifted children. In Whitmore, J.(Ed.). *Intellectual giftedness in young children* (pp.73-88). New York: Haworth Press.

Spodek, B. & Saracho, O. (1994). *Right from the start: Teaching children ages three to eight.* New York: Allyn & Bacon.

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Portfolios

Continued from page 1

parents consistently see the fruits of their child's learning, so that what is kept is a selection of representative items.

What purpose will the portfolio serve?
How can young children help organize and manage this project?
What products should be selected?

Exploration of answers to these three questions can provide motivation and direction to teachers interested in developing a portfolio program in their classrooms.

PURPOSE Teachers are encouraged to consider which of the following purposes are most applicable to their needs and then set up a program accordingly.

Portfolios:

- illustrate student efforts and progress, rather than achievements only, enabling children to experience high self-esteem. Children often voice great pride in their work as they look back at their accomplishments. As one excited 4-year-old exclaimed to her friend at the end of the year, "I know a lot!" Then she turned to some work from the beginning of the year and explained, "Look at this baby stuff. I did this when I was little."
- motivate children to want to learn. Because there is concrete evidence of what has been learned, many children try harder; current success often motivates future effort.
- encourage the talents of all children regardless of their current levels of development, which is consistent with developmentally appropriate practices. After several months, children can look at earlier work and see for themselves their own growth. Thus, even if they are not on grade level, the accumulation and presentation of their efforts validates their learning and progress.
- integrate instruction and assessment as the products help guide instructional decisions. As Valencia (1990) observed:

> *The real value of a portfolio does not lie in its physical appearance, location or organization; rather it is in the mindset that it instills in students and teachers. Portfolios represent a philosophy that demands that we view assessment as an integral part of our instruction, providing a process for teachers and students to use to guide learning (p.340).*

- increase the effectiveness of teacher, student and parent communication, providing parents with directly observable products and understandable evidence concerning their child's performance. After discussing a child's body of work in a conference with the teacher, parents are more likely to leave thinking, *You really know my child,* instead of *You like (or do not like) my child* (Kingore, 1993).
- serve as a transitional tool in the passing from one year to the next. At the end of one year, a few products may be selected from each portfolio to be passed on to next year's teacher. The rest of the work can be put together and bound as a book to take home as a treasure and keepsake for the family. Children's and parents' reactions to these finished books are very enthusiastic and positive!

CHILD-CENTERED ORGANIZATION AND MANAGEMENT

Keeping materials inexpensive and the process simple means that children can maintain most of the portfolio themselves and that teachers are freed from additional paper management.

Materials

1. Plastic crate with hanging files (a cardboard box or filing drawer also work)
2. Pocket folders or manila folders — one per child
3. Camera and film
4. Photograph of each child
5. Date stamp (optional)

Procedure

1. On each hanging file, write a child's name and attach a photograph that extends up from the top of the file and can be seen easily. Using photographs allows young children to file their own work even if they cannot recognize their name. And, children feel important as they file their own work.

2. Each child decorates a pocket or manila folder with his or her name written on it, which is then stored in the hanging file. Using these folders allows materials to be taken in and out without mixing up the organization of the filing system in the crate.

3. Each child should put his or her name on every product selected for inclusion. (Any stage of scribbling or creative spelling can communicate the name as long as it is recognizable to the child.) The date should also appear on each item so that progress over time can be determined. A date stamp is easily used by young children, or most can copy the date from numbers written on a chalkboard.

4. If possible, add to each product a statement dictated by the child about the work. Prompts such as "Tell me about your work," and "Why do you want this in your portfolio?" allow

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Portfolios

Continued from page 10

children to explore what they think about each piece. These metacognitive responses add depth and increase the understanding of others about the child's development. Resourceful teachers often invite students from an older class to spend a few minutes each week taking dictation from the younger children. The benefits from this interaction with younger students are many for these "big buddies" (Kingore, 1995).

5. Young students manage their own filing best when their portfolios are organized chronologically. Simply instruct children to add new materials to the back each time they file. By that method they will also see their earlier work and its growing accumulation, which becomes a tangible reminder to them that they are learning. Young children especially benefit from viewing their progress over a period of time.

6. The portfolio is a file, not a pile, a selection of work rather than just a collection of everything that has been done. Thus, set aside specific times for children to select and file, insuring that only the desired number of quality items is included. 1st through 3rd graders might select one product every week to save; the rest of their work goes home, enabling parents to see continuous indications of what is being learned. Because they produce fewer concrete products, preschool and kindergarten children might best select one product every two or three weeks.

It is no surprise, then, that children's pride in their work is increased and their intrinsic motivation to learn extended when they are significantly involved in the on-going organization and management of portfolios.

PRODUCT SELECTION A portfolio should be an integral reflection of the curriculum, rather than a random sampling of artificial activities and isolated skills. Attention to real and meaningful tasks is a crucial consideration in selecting products. Many preschool and primary teachers voice concern about what to include because so much of their children's work does not result in a paper and pencil product. See Figure 1 on page 12 for potential portfolio items appropriate to these age groups; they are meant to represent a starting place for ideas rather than items in an all-inclusive catalog.

Teacher-Assigned Products

Preschool and primary teachers frequently assign specific products to be included in portfolios. These tasks are intended to be repeated two or three times to show children's growth or changes over a school year; used to integrate one or more of the kinds of products discussed above, e.g., writing with dictation and art; or used to accent both affective and cognitive domains. The following are examples of some specific activities that numerous teachers have found beneficial and whose results they recommend for inclusion in the portfolios of young children. Teachers new to the process might consider trying just one or two of these suggestions which seem most appropriate for their class.

- Child's Self Portrait

Each child draws a picture of him or herself. In classrooms with a wide range of readiness levels, these portraits run from scribbles to fairly refined human figures. Particularly if undertaken at the beginning and the end of the year, this product measures the child's development of fine motor skills and self-image.

- Family Portrait

Each child draws a picture of his or her family. This picture can indicate the child's awareness of the surrounding environment and knowledge of family members. It also helps teachers understand more about each child's particular situation and home life.

- Picture Interest-Inventory

Fold large papers in thirds to create three drawing areas. In one of the panels, ask children to draw pictures of their favorite things, in the second, to draw the things they most like to do and in the third, to draw what they want to learn about. Add their dictation about each of the drawings and incorporate the information in instructional planning, e.g., a unit on zoo animals might be expanded to include bones and fossils because several children were interested in bones. (For very young children or those with shorter attention spans, each third may be completed at a different time. Simply fold the paper so only the third they are to draw on shows at one time.)

- Audio Tape of the Retelling of a Folk Tale

Individually, using each child's own tape, record the retelling of a well-known folk tale such as *The Three Little Pigs*. This process only takes a couple of minutes for each child, and the product is a fascinating measurement of oral language development when the

(Continued on page 12)

Figure 1

Product	Explanation	Purpose
Art	Natural and creative explorations (rather than crafts)	Reflects developmental levels and interests.
Photographs	Take a photograph of children's math manipulatives and patterns, group work, sculptures, models, dioramas, block constructions or role playing. (Major photography companies have special film offers for classrooms.)	Represents a multitude of three dimensional products using minimum storage room; provides a record of the product when no paper product is otherwise involved.
Video tape	Each child brings a tape to be added to throughout the year or over several years. Limit tape entries to 3 or 4 minutes. Most effectively used 4-6 times a year for special behaviors or occasions	A significant visual record and celebration of any academic or personal behavior
Audio tape	A child records oral story problems using math concepts, literature retellings, ideas, and problem solutions. (Children can complete their own recordings without adult help.)	Indicates oral language development, fluency and concept mastery.
Dictations	An adult writes a child's dictated explanation of a product or process. Adults prompt these dictations with statements such as: "Tell me about your picture;" and "Tell me how you did that."	Increases adults' understanding of why and how children do something. Indicates oral language development, fluency and concept mastery.
Writings	Lined or unlined paper on which a child has written numerals, letter-like shapes, letters, words or sentences. The accent is on the child's construction of meaning rather than exact letter formation.	Measures awareness of print concepts, emergent literacy and fine motor development.
Graphs or charts	Simple investigations children complete. For example, a child folds a piece of paper in half and then surveys and tallies classmates wearing velcro versus tied shoes. As another example, a child makes a "chart" for a category such as *the sound of B* or *things found on a farm* by cutting out and pasting on a paper pictures which fit that category.	Measures specific skills or concepts applied in the task, data recording strategies and organizational skills.
Computer products	Computer-generated products completed by a child.	Indicates computer literacy, emergent literacy, and other academic skills or concepts applied in the task.

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Portfolios

Continued from page 12

same tale is recorded at the beginning and again at the end of the year. Begin each entry on the tape by stating the date and the task: "Today is September 11, 1995, and Joslyn is going to tell the story of *The Three Little Pigs.*"

- Drawing of Geometric Shapes

Provide paper folded into fourths. Dictate a different shape to be drawn in each fourth in order to measure fine motor skills, awareness of shapes and readiness for writing between lines. The geometric shapes incorporate the same fine motor skills needed to print letters and numerals. Until children can draw circles, triangles and squares on their own, they will be frustrated when asked to practice formal letter formation or to write between lines.

* * *

Having considered here the purposes of portfolios, the involvement of young children in helping with their organization and management and what products to select for inclusion in them, the hope is that teachers will be interested in pursuing such a program for their own classrooms and will have significant information to help them get started. Teachers who are well informed about portfolios and allowed sufficient time to implement the changes necessary become positively convinced of the considerable value of this ongoing activity; they are then in a position to model the process and teach other teachers. As one wise first grade teacher wrote several months after implementing portfolios in her classroom, "I would like to plan a time for my class to share them with friends in another class. Mine is the only first grade doing this and it might encourage other teachers to try it" (Davis, 1994). She also knew the pride her children would experience in sharing with those who do not usually see what they produce. Thus, the end result of information and appropriate implementation time is that teachers and children both experience success.

> *Portfolios! Did you say we get to do them? And I don't have to pick every thing that goes in because my children do it? Great! I know just what to do!*

REFERENCES

Davis, D. (1994). *Reflections about portfolios.* (Unpublished critique). Abilene, TX: Hardin-Simmons University.

Kingore, B. (1995). *Reaching high potentials.* Columbus, OH: Macmillan/McGraw-Hill.

Kingore, B. (1993). *Portfolios: Enriching and assessing all students, identifying the gifted, grades K-6.* Des Moines, IA: Leadership Publishers.

Valencia, D. (1990). A portfolio approach to classroom reading assessment: The whys, whats, and hows. *The Reading Teacher, 42*(1),338-340.

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Early Gifts

Continued from page 1

students in 2nd grade and above, and advanced math for eligible 4th and 5th graders. In one budget year, the coordinator position and the pull-out program were eliminated; the following year brought the exclusion of the advanced math classes. Then, finding itself without program options for gifted students, the district simply dropped its formal, systematic process of identifying them. As one discouraged parent aptly protested:

> *Now, it's as if these children are a figment of our imagination. There is absolutely no formal process for identifying them anymore, not even for the benefit of [regular classroom] teachers who might use the information to modify their lesson plans or teaching styles to benefit these children. For all practical purposes, our school has simply turned its back on gifted children and made it more difficult for teachers to respond effectively to them.*

If a tree falls. . .

Early identification of gifted children affords parents, as well as school administrators and teachers, a head start in planning individual responses to children whose academic needs are not met by the standard classroom curriculum. When gifted programs were popular, parents could assume that their gifted children would be identified and appropriately served.

Now, the greatest potential for response and progress may lie in

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Early Gifts

Continued from page 13

the efforts of individuals — of parents, early caregivers, preschool teachers and advocates of gifted identification — all of whom now form the most promising network of support for the gifted child. Traits of giftedness are often recognizable well before a child enters elementary school. The people in this group of early childhood supporters, then, become pro-active advocates, alerting one another to special abilities, needs and gifted behaviors.

If our objective is to provide *all* children with appropriate educational opportunities, then our initial responsibility is to identify their individual educational potential and subsequent needs. We cannot do this effectively unless we provide more realistic measures of assessment. Certainly, some gifted children present facets of their talents in striking simplicity, i.e., the 3-year-old reader, the math whiz, the musical prodigy. Most often, though, the picture is not so clearly drawn.

For centuries, researchers, in education, science, psychology, medicine and beyond, have been pondering theories and experimenting with instruments and methods for measuring intelligence. From this research have evolved several theories of multiple intelligences. Proposing an explanation for the great diversity of characteristics among gifted children, one such theory was introduced more than a decade ago by Howard Gardner. In his work he describes seven areas of relatively independent intelligences:

- linguistic (verbal and written self-expression)
- mathematical (logical, strategy)
- spatial (artistic perspective)
- musical ability
- physical skill (kinesthetic)
- intrapersonal (self-knowledge)
- interpersonal (adroitness in dealing with others)

(Gardner, 1983)

Gardner opposes any single-number representation of a child's intelligence, such as that used to define the intelligence quotient, and those of us who work regularly with gifted children keenly appreciate this perspective. Giftedness may appear in any one, or more, of these seven areas and may look nothing like the classic, "gifted" stereotype. Viewed from this perspective, we may more easily identify gifted children and their particular gifts. Before, many children were missed or excluded because their abilities were not all equally exceptional. Artists, performers, young leaders, problem-solvers and many more are now recognized and cherished for the diverse abilities they possess.

Another researcher, Robert Sternberg, poses his "triarchic theory" of intelligence, which is comprised of:

- componential (involving analytical thinking)
- experiential (involving creative insight)
- contextual (involving the ability to manipulate the environment)

(Sternberg, 1985)

Sternberg states that the most critical need in ability testing is to develop measures which are sensitive to real-world kinds of intelligence. He applies the IQ test to only one of the three areas of intelligence in his model, the componential, and only partially. He notes that using a one-dimensional scale such as IQ leads to the view that giftedness and retardation are opposite ends of a single spectrum; whereas, the attributes measured to identify intellectual giftedness are not at all the same as those whose abundance or lack will distinguish mental retardation. Sternberg further proposes that a key psychological basis of intellectual giftedness resides in "insight skills," such as superior ability to deal with novel tasks and situations as well as adeptness at applying effective intellectual capabilities in more commonplace circumstances, whether academic, artistic, or of any other genre.

These, and other, bigger-picture, more inclusive theories afford us great hope in terms of early and appropriate identification of our gifted young.

Parents often see themselves as biased or inadequate identifiers of their young children's intelligence or potential, but in this author's experience, the most accurate identifiers of gifted children, from infancy through age 8, are indeed parents. The keenness and reliability of parents' observations come from the consistency and continuity of involvement with their child.

The following is a partial list of behaviors, tendencies and abilities, used by the Center for Gifted at National-Louis University near Chicago in helping parents identify expressions of giftedness in preschool and primary children. Exhibiting many, though not necessarily every indicator mentioned, a gifted child can be characterized as one who:

- expresses curiosity about many things
- asks thoughtful questions
- has an extensive vocabulary and uses complex sentence structure
- is able to express him/herself well

(Continued on page 15)

Early Gifts

Continued from page 14

- solves problems in unique ways
- has a good memory
- exhibits unusual talent in art, music or creative dramatics
- exhibits an especially original imagination
- uses previously learned information in new contexts
- is well able to order things in logical sequence
- discusses and elaborates on ideas
- is a fast learner
- works independently and uses initiative
- exhibits wit and humor
- has a sustained attention span and is willing to persist on challenging tasks
- is very observant
- shows talent in making up and telling stories
- is interested in reading

(Smutny, Veenker & Veenker, 1989)

Parents who are not afraid to affirm and support their young child's gifts once they identify or even suspect them can make a significant difference in actualizing the potential of that child. The parent, besides being mother or father, is caregiver, mentor, catalyst and friend. A child looks to the parent first and foremost as a continuous role model, someone significant who makes and implements choices about life values. It's an ever-evolving role that nonetheless remains a constant and common denominator for the growing child.

When their child begins school, parents often are reluctant, or ignorant of the need, to share with teachers what they know about their child's abilities. They assume that the teacher will recognize exceptional gifts and talents and respond to their consequent needs; or, at the prospect of being perceived as pushy they want to avoid labeling their child or are fearful that any distinction may place the child at a disadvantage in a classroom setting. On the contrary, parents who adopt the role of enlightened advocates for their child and provide insights and examples rather than emotional judgments are likely to be quite well received by teachers. In addition, these parents, not limiting themselves or their child by self-consciousness about his or her abilities, are those who invariably provide more appropriately challenging experiences outside the classroom as well as the advocacy needed within the school setting.

Parents should feel comfortable about taking appropriate steps to help educators identify the young gifted child and respond effectively. Some suggestions are offered below:

- Create and maintain a portfolio of work, activities, interests and comments that reflect the child's intellect. A portfolio may include library book awards, preschool projects of merit, projects from home that are unusual, special awards for scouting or community service and video and audio tapes of performances or projects (although photographs are better, as they can be viewed at the time the portfolio is reviewed). It is important to sort through the portfolio periodically to remove items that are truly more family momentos and do not necessarily show the excellence of the child's performance. The teacher should not have to pour through items in profusion in order to find the "nuggets!"
- Teachers are welcoming the portfolio technique more than ever before because it is so alive with the essence of the child — the multi-faceted thought process as well as the products of that intellectual energy. It's a tool they are coming to know and respect. The parent can bring the portfolio to the teacher before school starts or make an appointment to meet with the teacher as soon as possible after the school year begins, as opposed to waiting until mid-year to see if the teacher has identified the child's potential and needs.
- Cultivate a partnership relationship with teachers. Begin with a sincere desire to communicate, which includes listening and responding to new information, and an assumption that the efforts of both will be appreciated. A parent who has been frustrated in previous attempts with teachers may unwittingly dump that "baggage" on the next teacher in line. It's better to begin fresh and remember that the best things can happen by sharing respect and intelligent understanding. A satisfying experience with parent and child adds depth to a teacher's understanding of the needs of the gifted, and successful responses add to a repertoire for use with other gifted children.
- Maintain contact with the teacher throughout the year. If parent or child is particularly pleased with something a teacher has initiated, a positive note will affirm the teacher's efforts. Continued involvement of the parent benefits the child and provides the teacher with valuable feedback on specific efforts.
- Volunteer to assist teachers in their endeavors to enrich the classroom environment. This involvement in the substance of classroom activities gives insight into the teacher's methods and objectives and a better understanding of the school environment. Most teachers welcome such help, especially when it is reliable, and a parent's willingness to make that commitment is role modeling at its best.

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Early Gifts

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- Become a familiar face at the school — at PTO meetings, board meetings and through constructive comments in letters to the school board. If school boards and administrators realize that the desire of vocal parents is not to negate or fight the school, but rather, to support and advance the cause of excellence in education, they will likely be receptive. If needed, encourage a review of the school's method of identifying and responding to gifted children. Many elected officials, as well as school families, presume that this is being done, and they may be surprised to discover that the procedures for identifying these children have been discarded along with the elimination of the gifted programs.
- Network with other parents of gifted children to share community resource ideas, encourage friendships among children, and become a collective voice of advocacy for gifted children.

Parents of gifted children who feel isolated and/or frustrated about the limitations they encounter can immediately find common denominators, encouragement and enlightenment by sharing and communicating with other parents of gifted. Some will have ready solutions for what others perceive as huge problems; some will learn lessons by hearing about others' mistakes or make strides by learning of others' triumphs. Likewise, gifted children frequently and intuitively find one another in a group; parents can help facilitate that process, thereby allowing gifted children to become resources for each other.

In forests everywhere, there are trees falling; in classrooms all across this country, there are gifted children waiting. As we encourage teachers to presume that these students are there, so can we encourage parents to assume that gifted children walk the halls of every school, and that, in these times especially, they need parents to be their advocates. If we acuminate the sensitivity of educators and parents to the need of identifying gifted children, then we hold the door open for their receptivity to the constituent programs and perspectives. If we show our willingness to help and be supportive, then we make it easier for educators to respond in meaningful ways; and when we encourage helpful responses in the classroom and the community, we strengthen the broader network of support. Earnest efforts such as these, by parents, educators and others who perceive the needs of our gifted young, are the harbingers of understanding that the need to provide our gifted young children with appropriate educational opportunities is as integral to the development of their potential as teaching the alphabet to any child capable of learning it!

REFERENCES

Gardner, H. (1883). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Sternberg, R.J. (1985). *Beyond IQ.* New York: Cambridge University Press.

Smutny, J.F., Veenker, K. & Veenker, S. (1989). *Your gifted child: How to recognize and develop the special talents in your child from birth to age seven.* New York: Ballantine Books.

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Tactics

Continued from page 3

routes that suit their approaches and methods. If the brain has trouble with handwriting, for example, let's convince it that it's drawing by substituting calligraphy for cursive. If the brain has problems substituting the printed word for the spoken word, let's close caption TV so that the written word *is* the spoken word. If the brain has a tough time writing an essay, let's design a template using tabs, boxes and physical pieces to create a skeletal format that a chart-loving brain can see, understand and then flesh out for itself.

Thinking processes of the gifted involve leaps that others don't, and can't, make. Their world is more complex, inside and out, and so it makes sense that their learning is also more varied and complex. Their education must be as multi-dimensional as they are; we should be using their minds as templates for educators. By looking at the technologies that our visual kids are so enamored of and identifying those neural highway accesses, we can design learning that provides understandable maps, travels along familiar routes and leads them in all the myriad directions they want to go.

Gerri Masson, Educational Counseling Services in Colorado, specializes in assessment, strategies for bright students with learning differences, writing skills and college counseling for twice exceptional students.

In Search of Serendipity

Creative Ventures & Encounters

Jerry Flack
Tour Guide

Creative Behavior Is As Simple As ABC

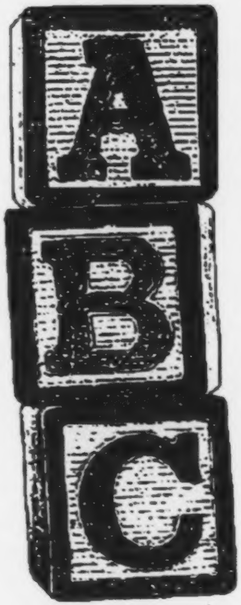
Nowhere is it written that expensive equipment or costly books or luxurious travel is needed in order to generate creativity. Using the human brain costs nothing and it is probably the greatest toy ever designed. It just needs frequent exercising. Here is one way to provoke classroom, dinner table and car travel fun that will also yield some great ideas. The facts and thoughts generated can be noted in journals by students or recorded in family logs.

The ABC's constitute one of the most remarkable tools ever created. The 26-letter English alphabet represents a wonderful way to boost brainstorming when lots and lots of ideas are the goal. It also functions as a handy means to organize, categorize and summarize all that has been learned about a subject.

Here are a few novel ABC ideas. Let's start by using the ABC's to think about creativity. In my creativity class at the University of Colorado, my students and I "fool around" with creativity, employing the ABC's as our organizer. Arranged below are a few prompts and thoughts taken from some of our classroom tries; think of them as prescriptions for becoming more creative people.

All ideas are acceptable.
Anything is possible.
Ask questions.
A.............
Believe in yourself and your ideas.
Be a good listener.
Bizarre ideas are not bad.
Be on the lookout for new ideas.
Brainstorm when you need a new concept
"A brainstorm a day keeps the doldrums at bay."
B...........
Crazy ideas are O.K.!
"Can't" is a four-letter word.
Change can be good for you.
Cartoons can inspire.
Create a feeling of acceptance and teamwork.
Celebrate CREATIVITY!
Challenge yourself to come up with one new idea daily.
C..........

How many ideas can you produce? From A to Z, what can you do to be as creative as possible? Don't stop with just one idea for each letter. Try to generate as many ideas as possible for each one. Don't be afraid to revisit a letter if, for example, a "K" word stimulating creativity triggers a bright idea about a "B" word.



All the great idea-generating doesn't have to stop when the class bell rings or a family meal is finished. Keep building and adding to the list. Kids can add new words and thoughts by typing them into a classroom word processor or writing them on a kitchen bulletin board.

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Simple As ABC

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The ABC's can also be utilized to summarize what has been learned during a unit of instruction in a classroom or on a field trip or family vacation. After a family vacation to landmarks of the Civil War, for example, young people might remember their trip by entering in their family journals a list of **Civil War ABC's**:

Antietam was the bloodiest battle of the Civil War. P. G. T. **Beauregard** was the Confederate commander who ordered his troops to fire on Fort Sumter. The **Confederacy** was founded in Montgomery, Alabama in February, 1861. Jefferson **Davis** was president of the Confederacy.

On another occasion, young people studying inventions might list all the products, appliances, gadgets and tools they can imagine for each of the letters of the alphabet. Their final list could become a resource bank of ideas for individual and small group investigations.

A = Airplanes, Arrows, Alarm Clocks
B = Ballpoint Pens, Batteries, Bicycles, Bridges
C = Cash Registers, Compasses, Coca Cola, Computers
D = Dentists' Drills, Dixie Cups, Detergents, Dynamite
E = Envelopes, Eye Glasses, Elevators
F = Footballs, Frisbees, Fireworks

Families can replace their familiar season's greetings letters with a creative ABC list of family news and accomplishments.

Alan got his driver's license this year! **Awesome!!** **Betty** is our newest family member: She has 4 legs, says "meow" and is of Siamese ancestry. **Camp Sunshine** is where Marita spent much of her summer. **Dad** celebrated Father's Day with a hole-in-one at Castle Pines.

Obviously, these are just "jump starts" for creative thinking. Turn on the computer or take out that legal pad and begin. What creative ways can you find to use the ABC's?

All ready? Begin now! Choose to be Creative!

Jerry Flack is a President's Teaching Scholar and Professor of Gifted Education at University of Colorado, Colorado Springs, and author of several books, including ***Inventing, Inventions, and Inventors*** and ***Lives of Promise***.

Surfing the Net

Continued from page 7

don't subscribe to the KIDLINK service, then you won't know what's going on.

The KIDLINK gopher provides additional information. To reach this Internet site, gopher to:
kids.ccit.duq.edu or
165.190.8.35.

CONSORTIUM FOR SCHOOL NETWORKING (COSN)

COSN is a non-profit organization formed to further the development and use of telecommunications in K-12 education. Members represent educational, institutional, and commercial organizations, all of whom share the goal of promoting the state of the art in school computer networking technologies.

How to get into COSN gopher:

a) by GOPHER. Issue this command at your command prompt:
gopher digital.cosn.org
or
gopher cosn.org

b) by TELNET to a gopher client. Issue this command:
telnet consultant.micro.umn.edu (134.84.132.4) login: gopher
and navigate your way to the COSN gopher hole select:
Other Gopher and Information Servers"
North America" USA" General"
Consortium for School Networking (COSN)
(this will be quite slow, as many folks use this service)

c) non-interactively by e-mail using a MAILGOPHER server. If you do not have a full Internet connection, send e-mail with one word "GOPHERHELP" to <mailgopher@nusunix1.nus.sg> and you will receive an e-mail message containing instructions.

That ends our travels for now. Keep exploring, and let us know if you find anything new, exciting, or especially interesting.

The ideas expressed in this article are the author's, and do not necessarily represent the views of the Council for Exceptional Children or the ERIC Clearinghouse on Disabilities and Gifted Education.

Sandra Berger is the Information Specialist for Gifted Education at the ERIC Clearinghouse on Disabilities and Gifted Education in Reston, Virginia. She is the author of ***College Planning for Gifted Students*** and has played a critical role in establishing and disseminating electronic resources for the gifted on the Internet.

Above and Beyond

The Language of Advocacy

Almost all school districts' mission statements contain a phrase similar to, "All our students will learn to their highest potential." The target group for which the phrase was created are those who struggle to learn. It is ironic that in mixed-ability classrooms, the students who are at greatest risk of *learning the least* are the most capable learners! When parents want to influence teachers to offer a more challenging curriculum to their gifted children, their success may depend upon the language they use in making the request.

Enter almost any classroom today, and because of the increasing diversity of the student body you will observe that teachers are already stretched about as far as they can be. Asking them to provide something special for kids who appear to be learning just fine may seem unreasonable. Parents and teachers need to understand that when gifted kids are getting high grades without expending any effort, they are likely to become addicted to avoiding anything that challenges them because meeting the challenge would require effort. Since many gifted kids have concluded that smart people never have to struggle, it becomes all the more important to make sure they are learning how to learn.

The table below suggests the language parents can use to help teachers understand that the only thing they want for their highly capable children is what all other kids get regularly: consistent, daily opportunity to experience the struggle and joy of learning new ideas.

When parents and teachers work together toward the common goal of having all students working up to their greatest potential, the learning needs of gifted students are more likely to be addressed. When teachers and parents perceive that they are partners in the business of educating all the children, the students will be the true "winners."

Susan Winebrenner, from Illinois, presents workshops on a variety of topics, but her first love is teaching gifted children. She is the author of ***Teaching Gifted Kids in the Regular Classroom.***

What to Say	What to Avoid
What evidence do you have that my child is learning something new everyday?	My child is bored in your class. Why aren't you challenging her more?
My child never has to do any work at home, yet gets high grades. He needs to understand that good results should reflect hard work.	I want my child to have work every night so he can become accustomed to homework. Practice makes perfect!
I understand if you provide opportunities for my child to learn to struggle, some lower grades are to be expected.	Are you aware that you are the first teacher to ruin my child's perfect grade point average? He will never get into the right college now!
I will support the school's efforts to make sure all students are working at a challenge level.	We must keep the existing gifted program only for identified gifted kids.

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The Bulletin Board

This space is for you!

This section serves parents, teachers and non-profit groups. We will print your announcements as space permits.

Association for the Education of Gifted Underachieving Students (AEGUS), March 17-18, Birmingham, AL, Brian Reid, (205)934-3440.

PROFESSIONAL DEVELOPMENT SERIES....Current Themes in Gifted Education. The first two books in the series—***Affective Education: Self-Concept & the Gifted Student*** by Elinor Katz; and ***Parent Education: Parents as Partners*** by Dorothy Knopper—are now in their second printing. Use order form in this issue or call (303)444-7020/ FAX(303)545-6505. Coming soon: New books in this series published by **Open Space Communications, Inc.**

Next Issue:

SECONDARY GIFTED STUDENTS

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John F. Feldhusen

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John F. Feldhusen

Language Arts
Ann Robinson

THE KINDERGARTEN BLUES

I dreamed of lift-off, weightless flight
Above my classroom floor.
With whoops and twirls and loops and swirls
My mind would glide, sing, soar.

Now I think that learning's just
Some steps that spiral 'round.
My only flights are flights of stairs.
My feet stay on the ground.

I struggle on, climb each new step.
I want to reach the sky.
I hope these stairs go high enough
So someday I can fly.

Kathy Hall is a teacher in Abilene, Texas and the parent of three gifted sons.

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UNDERSTANDING OUR GIFTED®

Dedicated to helping gifted children reach their full potential

March/April, 1995

Volume 7, Issue 4

Talent Development as the Alternative in High School Programs

John F. Feldhusen

Far more utilitarian than the general classification "gifted," with its connotations of a fixed index of ability (Dweck, 1986), is the construct of talent development, which supports identification of young people's specific talents, aptitudes or abilities as a process over time. In view of the various conceptions of talent development and the compelling theories of multiple intelligences advanced by Bloom (1985), Gagne (1985), Gardner (1983) and others, the belief that children have or do not have a sort of blanket giftedness seems outmoded. Whatever the construct of "giftedness" may be, it certainly is not a dichotomous variable or condition within a child, and undoubtedly there are many factors in the psychological makeup of children that portend high level, creative achievement. These factors are all variables along a continuum, and it seems impossible to specify a level for any one variable or combination of variables indicating an arbitrary cut-off level for designation as "gifted."

The ubiquitous IQ and its attendant label-bestowing identification

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FOCUS ON:

SECONDARY GIFTED STUDENTS

GUEST EDITOR
John F. Feldhusen

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Adolescents and the Arts: Talent Development Through the National Standards

Ann Robinson and Leslie Dudley Corbell

> *The function of the arts is to bring order out of chaos, coherence out of the endless static, the gibberish of the stars, and to render people capable of thinking metaphorically.*
>
> Edward Albee (1988)

A good deal of ink has been spent in eloquent justifications for the importance of the arts in education. The arts have been proposed as an alternative way of knowing (Eisner, 1982), as cultural capital (National Endowment for the Arts, 1988), as important outlets for self-examination and communication (National Endowment for the Arts) and for social commentary. In each of these persuasive justifications, we find good reasons for the arts to be a part of students' school experiences.

Unfortunately, persuasive reasons for the intrinsic worth of the arts are many; well-funded arts opportunities in the schools are few. A decade ago, a survey by Clark and Zimmerman provided some

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PROLOGUE

Recently, a compelling story of brilliance and tragedy dominated the media as Kevin Mitnick, "America's most wanted computer hacker," was finally captured. Kevin's intricate knowledge of computer technology and his unique ability to break into complex telecommunications could only exist in someone with a brilliant intellect. Unfortunately, this astounding talent, fueled by a passion for computer networks and an intriguing sense of humor, was used against society, and therein lies the tragedy. Earlier in Kevin's life, why didn't a parent, teacher, counselor or colleague recognize the amazing potential of this capable individual and offer suggestions, provide guidance or call for help? Kevin will suffer the punishment for all of us, a sad reminder that when talent is wasted or, worse yet, utilized with criminal intent, we all lose.

In this issue we are privileged to have John Feldhusen as our Guest Editor and author of the lead article on talent development and secondary education. Jan Hansen (1994), in a book honoring John, describes him as "one who has made the improvement of conditions for talented youth his life's work" (p. xiii). (Hansen, J.B. & Hoover, S.M. {Eds.}. *Talent development: Theories & practice*. Dubuque, IA: Kendall/Hunt.)

Ann Robinson, another outstanding leader in the field of gifted education, joins Leslie Corbell in emphasizing the arts as a foundation for talent development. In two special features, Don Treffinger defines talent development, and Arlene DeVries shares her experience with mentoring. Felicia Dixon is this issue's "Tactics" columnist, discussing what has worked for her in teaching secondary English programs.

Please continue to keep in touch via mail, phone and FAX!

D.K.

Special Feature

Talent Development: An Emerging View

Donald J. Treffinger

A new focus on talent identification and development is not simply a cosmetic change or new terminology for "gifted education;" it is, indeed, a fundamentally new orientation to the nature, scope and practice of our field. Talent development spans a lifetime, reminding us to seek ways to recognize, nurture and apply many and varied talents among children, adolescents and adults. It also involves our growing recognition of the contextualization of talents or aptitudes, as we move beyond a conception of giftedness focused only on abilities or "gifts" presumed to exist entirely within the head of the individual. Talents arise from, and talented performances over time are influenced by, many social, cultural or circumstantial (or climate) factors outside the person's internal, testable cognitive abilities. Many factors influence the definition, development and expression of talents in profoundly important ways. Researchers and practitioners are forging new views of identification that focus on profiling talents and responding in varied ways; they are moving away from the traditional selection models ("gifted or not gifted; in or out").

In addition to stimulating new dialogue about the nature and breadth of talents and the nature and focus of identification, talent development also challenges educators to explore innovative and varied approaches to programming. It involves a dual task: responding appropriately (and with flexibility) to the needs of students who already demonstrate very high levels of accomplishment in any talent area *and* initiating deliberate actions to seek and nurture the talents of all students. Talent development challenges educators to respond in more varied and effective ways to the strengths, talents and sustained interests of all students, in ways that are commensurate with each person's characteristics and needs.

Traditional narrow approaches to gifted programming are evolving into richer, more powerful efforts to recognize and nurture many talents among many students. As we continue along this course of change, we will be called on to discover and apply our own creativity and problem-solving skills as well as to nurture these same skills in our students.

Donald J. Treffinger is President of the Center for Creative Learning, Inc., Florida, and Professor of Creative Studies at Buffalo State College, New York. He is the author of approximately 50 publications, including ***Creative Thinking and Problem Solving in Gifted Education*** (with John Feldhusen).

Felicia Dixon

Tactics

The Gifted in Secondary Literature Programs

When I'm asked what type of programs verbally gifted secondary students need, my first impulse is to reframe the question in terms of what these students *deserve*. Their superior cognitive abilities and appetites, as well as their enormous potential, merit a different, often more rigorous, type of teaching and focus in the classroom.

In my experience teaching English literature to high-ability students, I find this eager, quick, insightful and opinionated population demands daily challenge, inspiration and encouragement.

Trying to meet each of these worthy demands on a daily basis requires constant generation of new ideas and strategies. With the intent of developing good thinkers and writers in my classes, I emphasize especially the time-honored disciplines of discussion and writing.

For whole-group work, I prefer the seminar format in which we all sit in a circle to participate in discussion of particular themes, (the Arthurian Legend and the Literature of the Lost Generation are two we have recently tackled) or a single author (my favorite is Dickens). As the teacher in seminar sessions, I see my role as that of discussion facilitator, sprinkling in a variety of thoughts from secondary texts, as well as providing the interesting and challenging raw material that I hope will summon the students' meaningful participation. Sometimes I throw out a traditional beginning question: "What are some fictional or romantic, as opposed to authentic, aspects of the Arthurian legend?" or "How and why do we romanticize history?" On other days, I may ask the class to come up with newspaper headlines on Lancelot's taking of Guinevere or have them do man-on-the-street interviews with Sir Gawain and the Green Knight.

Small groups are also effective in discussing broad topics or themes. If the make-up of the group is well planned and given well defined tasks, gifted students, who are often well-read and extremely verbal, can carry out high-level, quality discussions. I may begin by isolating two themes in something we've read, then ask the groups to focus on the opposition of these themes. Adding the dimension of reporting findings to the large group helps maintain interest and taps creativity; often I furnish transparencies and markers and ask each group to explain its perspective to the class. Some days I ask them to devise a completely creative response to what they have been discussing, whether the author would have "approved" or not, as with an activity I do in March for Charles Dickens' birthday. When we read *David Copperfield*, I ask each student to assume the identity of a Dickens' character and plan a birthday gift for the author, one that would exist in his time and of which he would approve. Much more often than not, I find that these students have strong opinions about what they read and how it all fits together and that they want to share these ideas verbally and test them out against those of their peers and teachers. Creative activities offer opportunities to use and extend their enormous powers of creativity and intelligence.

Videotaping what happens in the classroom is fun and rewarding to both students and teacher, and I tape all potentially interesting activities to determine whether or not they work. Also, I find it benefits the students to analyze the process with them, and they, of course, enjoy seeing themselves in living color.

To further hone thinking skills and self-expression, a substantial amount of writing is absolutely essential and must be stressed. Term papers and short analytical papers (I have always loved the five paragraph expository essay) tap their ability to analyze and synthesize literature. I frequently add a creative alternative to my list of essay topics which asks students to look at the issue from a different perspective. Recently, as an essay examination for an American lit class that had just finished reading Hawthorne, Melville, Whitman, Thoreau, Emerson and Dickinson, I presented the scenario that these

(Continued on next page)

Barbara Mullins

Parenting

The Middle Years

Middle school years present a challenge for most children as they experience changes in their bodies, feelings and relationships, and as they seek to find their own "place." For gifted children, this can be a period of greater challenges and even more difficult adjustments. The role of parents during these critical years is to support children's exploration of these changes in their lives and to provide the appropriate balance of freedom and guidance in a safe and supportive environment.

During adolescence, child, parents and educators may have high and potentially conflicting expectations. Educators' high academic expectations and/or unrealistic parental expectations of the fulfillment of early talent, coupled with the difficulty of making reasonable choices by children with many interests, can result in children's overextending themselves in order to please everyone. Much conflict in these situations could be avoided if educators offered more and more varied academic choices to gifted middle schoolers and if parents would let go of their dreams while giving children permission to explore their own. Setting expectations and standards that are clear and fair, avoiding perfectionist tendencies (getting straight A's, for example), will encourage development of well-rounded individuals. Parents should also encourage risk-taking and realize that failure also provides learning experiences. Finally, children themselves must be realistic about how much time and investment are required by each area of interest and then clearly communicate their desires and goals.

The challenge for parents becomes one of balancing the desire to provide guidance with the inclination to allow children the freedom to pursue choices. Through the early years, parents usually play a more active role in guiding their children's choices within areas of interest, but in the middle years their role should become more passive in supporting continued or new interests. Children can be encouraged to supplement and extend school offerings by using community resources; involvement in community services can expand young people's horizons while building on their passion and compassion and providing a sense of purpose.

A hallmark of the middle years is the need to belong. Gifted children are not always certain with whom they belong, or with whom they **want** to belong. They do not always share the interests of their age peers, and in displaying their talents and passions, they may be left out or misunderstood. Reacting to either of these painful consequences, gifted children may hide who they are in order to fit in. Parents can help to sort out confusing feelings by establishing on-going and open dialogue in which self-expression and listening are valued, offering advice if it is requested and demonstrating acceptance and respect.

Most importantly, parents, enjoy your gifted children and tell them often that you love them. The foundation of support and trust you build will enable your children to move smoothly from the dependence of childhood to the independence of adulthood.

Barbara Mullins, an education manager in St. Charles, Illinois, is the mother of two gifted children.

Tactics

Continued from page 4

authors had been invited home for dinner; students were asked to devise a dinner table seating plan, rationalize it and then speculate on what the focus of the dinner conversation would be. They could add their menu if they chose, or tell how the guests might react to what was served. Then they were to present the conversation, using a format of their choice. Directions spelled out the necessity of supporting each statement with ideas they had taken from the reading. Thus, they were called on to use, and I could evaluate, their critical thinking processes in a highly creative presentation.

I try to encourage my highly capable students to take risks through various forms of challenging discussion and writing, and I believe they, and by extension our society, profit from this. Certainly, the preparation of teaching them is a challenge to me, but it's one I look forward to and work hard on each day. They deserve it.

Felicia Dixon is an instructor at Indiana Academy for Mathematics, Science and the Humanities and is working on her Ph.D. in gifted education at Purdue University.

Surfing the Net

More Computer Network Resources

GLOBAL SCHOOLNET FOUNDATION and K12NET
Formerly FrEdMail, the Global SchoolNet manages an "IDEAS" list that posts only the best project-based learning activities on the Internet. To subscribe, send a message to majordomo@acme.fred.org with the line "subscribe ideas" in the body of the message.

K12NET is an inexpensive, decentralized, grassroots method to begin Internet use. A growing network, K12Net provides low-budget educational e-mail services to teachers, students and parents. For information, send a message to Helen Sternheim at <helen@k12.ucs.umass.edu>. For K-12 educators with limited funding, K12Net and Global SchoolNet may be the only Internet e-mail options.

Projects and Lesson Plans

My two favorite Internet sites for projects and lesson plans are listed here. I like them because they are comprehensive resources with links to other resources. And these two sites are as comfortable as the shoes you put on when you are footsore from traveling.

AskERIC LESSON PLANS
Teachers are interested in tried-and-true lesson plans. The nice thing about the Internet is getting good projects that already have been tried and then customizing them. The AskERIC collection of lesson plans is extensive.

Gopher	ericir.syr.edu
Telnet	ericir.syr.edu
Login	gopher

NASA SPACELINK LESSON PLANS
Telnet site:
spacelink.msfc.nasa.gov or
192.149.89.61

login	newuser
password	newuser

Anonymous FTP site:
spacelink.msfc.nasa.gov or
192.149.89.61

password	guest
file	README
modem	205/895-0028

NASA also offers an interactive site in which students can research the current status of NASA projects, including "The Mars Mission." This is a busy site. The response may be slow, or you may be refused access. If you receive an error message, try again later when traffic may be lighter. NASA offers a great 12-minute video, entitled *The Global Quest: The Internet in the Classroom.* It features K-12 students and teachers, and may be freely copied for educational use. For information, call the voice telephone number (216)774-1051, ext. 293.

Gifted Education Listservs

Several listservs focus on gifted education. Subscribers include parents, teachers and other professionals who work with the gifted. Discussions vary in content, and many subscribers are Internet "newbies." A new list, announced in January 1995, provides a forum for finding keypals. Hint: After you subscribe to a list, you will receive a message that provides lots of information, including how to unsubscribe. Keep this message!

GiftedNet-L. (Discussion limited to curriculum) To subscribe to GiftedNet, sponsored by the College of William & Mary, send an e-mail message to:
listserver@listserv.cc.wm.edu
Skip the Subject line, and on the first text line, type:Subscribe giftednet-l (your first name, followed by your last name)

TAG-L. To subscribe, send an e-mail message to:
LISTSERV@VM1.NODAK.EDU
Skip the Subject line, and on the first text line, type: Subscribe TAG-L (your first name, followed by your last name)

GTOT-L discusses topics related to very young children who are gifted or potentially gifted. To subscribe, send an e-mail message to:
majordomo@eskimo.com
Skip the Subject line, and on the first line, type: subscribe gtot-l (your e-mail address)

TAGFAMLY. To subscribe, send the following command in the BODY of mail to
LISTSERV@SJUVM on BITNET or
LISTSERV@SJUVM.STJOHNS.EDU on the Internet: SUB TAGFAMLY yourfirstname yourlastname

K12Pals is a list targeting elementary and secondary students seeking penpals. This list, sponsored by the AskERIC Project, is open to K-12 students or teachers. To subscribe, send an e-mail LISTSERV@SUVM.SYR.EDU
On the first text line, type:
Subscribe K12Pals (your first name, followed by your last name)

Keep in mind that when you subscribe to a list, you should avoid the use of signature blocks. Extra information will confuse the robot that automatically adds your name.

The ideas expressed in this article are the author's, and do not necessarily represent the views of the CEC or ERIC Clearinghouse on Disabilities and Gifted Education.

Sandra Berger is the Information Specialist for Gifted Education at the ERIC Clearinghouse on Disabilities and Gifted Education in Reston, Virginia. She is the author of ***College Planning for Gifted Students.***

Gloria Frender

Learning To Learn

If You Would Just Get Organized...

This statement is one of the most often repeated laments of teachers and parents. Being organized means efficient and effective use of time, materials and brain power. In fact, more learning and good grades are lost through a lack of organization than information, so it makes sense that all areas of learning can profit from a solid foundation of appropriate time management and organizational skills.

Gifted students, those with high grades as well as underachievers, may not apply appropriate organizational skills necessary for present or future learning success. In fact, the disorganized seldom understand or know where to begin when told to "get organized." Teachers can positively influence students by using effective classroom organization procedures. At home, parents are encouraged to become consultants to their children through active and consistent support of good study techniques. Students can be helped significantly if they:

- understand the importance of homework and study time.
- take an inventory of basic study skills.
- know and apply learning style strategies.
- help plan and use study time effectively.

Gifted students can satisfy their need to learn faster and become less frustrated if they learn to use time to their best advantage. Also, time-management skills can make life easier and more enjoyable by reducing stress and anxiety, which may offer them added incentive.

Two crucial student time-management techniques are: setting priorities and designing "Study Time."

Setting Priorities

1. Become aware of current time-management patterns and change them gradually to better meet individual needs.
2. Intend to accomplish goals in a reasonable amount of time.
3. Predict the amount of time and effort required to complete a task and plan accordingly.
4. Learn to use spare moments: standing in line, waiting for someone or something.
5. Be realistic in eliminating excuses; reward positive behavior.
6. Set priorities carefully in order to save time; allow enough time to do the best job.
7. Keep up-to-date with studies; pacing is important.
8. Provide time for continual review.
9. Be sure study activities are in tune with intentions; make a conscientious effort to "learn and remember" each time before study begins.
10. Seriously consider the effects of procrastination.
11. Don't over-commit; consider all commitments and their relative priorities.

Study Time

Better than just "Doing Homework," which has always meant spending only the time it takes to complete the next day's assignments, is the concept of "Study Time." Designing and instituting a regularly scheduled, daily time period for academic endeavors provides time not only for finishing that next-day work but for reading and studying beyond what is required. Because of their usual quick learning ability, gifted learners too often practice last-minute cramming, which can prove detrimental when the material becomes more difficult. Real learning is achieved when studying is routinely spaced over a period of time. After consulting with teachers and parents, students can cement their personal investment in the undertaking of the non-negotiable five-day regimen of Study Time by assuming scheduling and daily organizing duties; their direct input encourages acceptance of this approach and greatly increases its success.

Consider the following when setting Study Time:

1. Study Time should begin in the 1st grade; however, it's **never** too late to start.
2. Use a weekly schedule that accounts for every hour in the morning, afternoon and evening (a grid of rectangles with seven columns for days and numerous rows for hours works best), block off and label:
    - getting up and bed times
    - approximate meal times
    - school hours (including

(Continued on next page)

Learning Styles

Continued from page 7

transportation time)
- regularly scheduled activities (scouts, music lessons, jobs, etc.)

3. Consider when focus and learning are best accomplished (afternoon or early evening) and schedule study sessions during those hours.

4. An appropriate amount of study time is 10 minutes per grade level per day, five days per week.

5. Mark "Study Time" in the appropriate number of rectangles for the grade level; these should be at about the same time each day. Remember: Habits are made when actions are regularly repeated at the same time and in the same place.

6. Divide study time into appropriate time blocks, allowing a 10-minute break between blocks –10-15 minutes for primary, 15-20 minutes for upper elementary, 30-35 minutes for middle through senior high, and 45 minutes for college students. Physical activity during the break stimulates the mind.

7. Organize the activity within each study block, making a definite plan of attack for using each block to its best potential. Warm up: Decide on a subject and ask, "What did I learn today?" Study: Complete assignment or review information. Summarize: Name three concepts to remember, and ask, "How can I relate this to what I learned yesterday?"

8. Stick to the schedule. Periodically reassess its success and make realistic changes as needed. Encourage independence and self-initiation, with appropriate rewards at set intervals to reinforce positive behavior. Students need to make this a priority and try the schedule for two weeks.

9. Eliminate all distractions. Focus hard and really study during each particular block, then enjoy break time.

10. Post the Study Time schedule in a convenient location.

Study Time Activities:
Essential to the success of Study Time is student acceptance of and belief in the view that these periods *must* be more than just homework sessions. As has been discussed in earlier columns, individuals can be left- or right-brain dominant and learn best through a variety of channels: the visual, auditory, kinesthetic or any combination of these. Learning is optimized when material is organized in ways that suit particular styles. For example, consider Anton, who is a left-brain visual learner; for him, comprehension occurs when he breaks down a lesson into small, sequential increments, building towards a logically constructed end-point. His classmate Zoe is a right-brain auditory learner and goes about her work on the same lesson in a much different manner; she must begin with an idea of the whole, getting "the big picture," before trying to clarify details or learn rules that apply. Anton and Zoe have identical goals, but they begin at different points and must use means that best suit their styles in order to achieve the same end. Therefore, to make the most of Study Time, students, parents and teachers should be familiar with learning styles and various strategies for accommodating those styles. Students should be encouraged to do what works best for them. Remember: *It's not the TIME you put in...It's what you put into the TIME!*

Adapted for individual learning styles, any of the following Study Time activities can be used at any time and prove successful for all students.

- Complete homework assignments
- Review major concepts (5-10 minutes per subject per day)
- Learn vocabulary words
- Review class or text notes, lab reports
- Make study sheets, graphic organizers, charts
- Make 3"x5" flash cards
- Make audio tapes or notes
- Re-read text assignments and summarize
- Read ahead in text if appropriate
- Reorganize, clean out and update class notebooks
- Check and update weekly and monthly assignment calendars
- Review and correct errors on past assignments, quizzes, tests
- Organize and plan long-range papers, reports
- Read educational magazines and library books
- Work with appropriate educational software or write programs to help with homework

And, what is organization? I think A. A. Milne said it best:

Organization is what you do before you do something, so that when you do it, it's not all mixed up.

❧

Gloria Frender, a nationally known educational consultant from Boulder, Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the mother of two gifted children and author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use.***

Mentoring and Talent Development

Arlene R. DeVries

Becky spends several hours a week during the school year and four to five hours daily during the summer at the immunology lab of the Human Gene Therapy Research Institute. She's also a lively, social high school senior, talented cello player and advanced placement scholar with plans for a pre-med program. Becky chooses to invest this time with her mentor, studying molecular biology and brain tumor trials, because "it's rewarding to be around people who have a passion for what they do, and this environment allows me to see how far I can go."

In 1981, the Des Moines Public Schools added a community resource consultant to the district's gifted/talented program and developed a mentorship program. Since then, teachers, students, parents and administrators report both cognitive and affective growth in students participating in a mentor relationship. Torrance (1984), in his 22-year study of 212 adults, concludes, "It has been demonstrated empirically that mentors can make a difference in the creative achievements and educational attainments of mentees" (p.6).

The mentor can be a listener, guide, advisor, teacher, encourager, advocate, and, according to Torrance (1984), a builder of self-confidence, a developer of thinking skills and a nurturer of creative growth. Mentoring is a supportive relationship in which an individual shares knowledge, skills and experience with young people. Most importantly the mentor listens and responds to the student's needs, encouraging positive growth.

The goals of mentoring might be any or a combination of the following: 1) to increase self-esteem, 2) to promote academic achievement, 3) to develop a particular talent, 4) to expand career or academic options, 5) to develop self-responsibility or 6) to increase economic self-sufficiency. If mentors are used specifically for student talent development, the goals might be:

1. To offer the opportunity of learning beyond the limits of the established high school curriculum.
2. To offer access to professional leadership role models in the community.
3. To raise awareness of education and career options and assist in decision-making concerning those options.

Determining which students would most benefit from a mentor in talent development can be based on several criteria: self-selection or recommendation by a parent, teacher or other school staff member. Chris, who worked with a mentor in graphic art, described his need for a mentor (Reilly, 1992):

> *It's hard for me to say what those needs are in general, but for me the most frustrating part of the traditional school system was being locked into the same pace as everyone else. I enjoy learning quickly. I need space to move and find some things out on my own. But that doesn't mean I don't need structure or a safety net . . . just let me know you're there and give me a few helpful hints along the way (p. 272).*

Students are generally considered good candidates for a mentor relationship when they have exhausted the resources of the school system, are performing beyond the instructional level of the classroom, have talents in areas not addressed in the curriculum, show a focus and desire to pursue a given talent and demonstrate responsibility in carrying through on a commitment with a mentor. Consider the following poem written, not as a class assignment, but spontaneously, by a 4th grade student in the Des Moines Public Schools.

LOVE

Love is like a shadow
behind a tree,
hiding in a cave,
miles away from life,
down a path,
somewhere,
and at one time or another,
you will surely find it.
Love.

The classroom teacher and the gifted/talented coordinator recognized writing ability beyond the level of most 4th graders. Aside from the perceived talent potential, the poem's content along with written, behavioral and verbal expressions in the classroom also indicated this student's low self-esteem. A request was made to the gifted/talented program's community resource consultant to locate an adult male writer-role model to serve as a mentor for the student. An appropriate individual was found and the two now meet weekly in the school library. Along with the development of this youngster's verbal skills and promise through the mentoring experience, the belief is that the student will also develop a more positive sense of self and of his own worth.

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Mentoring

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Fundamental to the success of the mentor relationship is a harmony in the match of the two individuals based on their personalities, teaching and learning styles, values and interests. Adults who have experienced similar academic or "belonging" needs while growing up, or who have watched their own children wrestle with these issues, often make excellent mentors. Among the basic characteristics that the Des Moines gifted/talented community resource consultant looks for when selecting mentors are: communication skills (including a willingness to listen), maturity, commitment, motivation, sense of humor, experience, in-depth knowledge in a particular area, interpersonal skills that include the ability to show empathy, an interest in and a comfort level with young people and a willingness to invest themselves personally. Ultimately trust becomes the most important characteristic of the mentoring relationship.

As for seeking out people with these traits and a willingness to reach beyond themselves, it has been said that the secret to any successful recruitment is to "ask the right person at the right time for the right thing for the right purpose." Chances of success are enhanced if the *right person* asks! Mentors are found in many ways, some of which take more formal routes: media messages via radio, television, newspapers, flyers, bulletin boards, libraries, corporate newsletters, electronic mail systems, formal presentations at community and civic organizations, professional and trade meetings, through religious groups, parent meetings, schools, retirement associations, student organizations, business and industry and professional societies. Other, less formal routes, are often successful as well because people tend to invest in causes they believe in through people they know. In the Des Moines program, word of mouth and personal contact by someone who has been associated with the program have produced the best results.

Four times a year mentors in the Des Moines Public Schools gifted/talented program are invited to a training/recognition breakfast where they meet for informal sharing and to hear presentations on such topics as: 1) Communicating with Young People, 2) Mentoring and the Business Community, 3) Conflict Management, 4) Establishing Rapport, 5) Cultural and Heritage Sensitivity, 6) Cultivating Relationships and 7) Bringing a Relationship to Closure.

The present trend in mentoring is a natural outgrowth of the current national emphasis on school/community partnerships in education, and mentorship possibilities in talent areas are unlimited. In addition to molecular biology, graphic art and creative writing, as discussed here, the disciplines of architecture, music, woodworking, photography, aviation, veterinary medicine, robotics, horticulture, journalism, advanced mathematics, tailoring, electronics, or computer programming offer mentorship potential. Volunteers in all areas respond positively to the opportunity to contribute their knowledge and skills to the talent development of today's bright, creative youth. A number of these individuals have described having good mentoring experiences themselves as young people, while others have reported discovering a "rejuvenated self."

The greatest importance in all this, though, is for young people; for gifted students, mentorships provide significant benefits in developing their talents. "The effects for students who participate in a mentoring program include honed thinking skills and creativity, increased self-esteem, better developed skills in the field, more clearly defined career options, connections made between work and school, increased motivation to achieve, friendships made with mentors and fellow students, inspiration generated by a role model, matured sense of responsibility and direction and better understood and developed potentials" (Reilly, 1992, pp. 219-220). For all the Becky's and Chris's and 4th grade poets out there who need this kind of in-depth help and attention, a mentorship could well make the difference for them.

REFERENCES

Nash, D., & Treffinger, D. (1993). *The mentor kit: A step-by-step guide to creating an effective mentor program in your school..* Waco, TX: Prufrock Press.

Reilly, J. (1992). *Mentorship: The essential guide for schools and business.* Dayton, OH: Ohio Psychology Press.

Torrance, E. P. (1984). *Mentor relationships: How they aid creative achievement, endure, change, and die.* Buffalo, NY: Bearly Limited.

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Talent Development

Continued from page 1

process surely convey the sense that the child has a "gift" or "giftedness." Dweck suggests that entity orientation generates some kinds of undesirable motivation and learning behaviors. Motivationally the child may strive to maintain the image of the label "gifted" and behaviorally avoid tasks or activities which pose threats to the maintenance of the image. Alternatively, Dweck describes the "incremental" orientation in which one sees his or her ability as a growth-oriented process. This incremental orientation seems to lead to more productive learning behaviors and risk-taking because the "gifted" ego is not threatened. Thus, the child plunges into problem-solving activities without fear that failure will reveal a lack of giftedness.

Talent as Alternative

For those in whom talent is high, the essence of that strength in youth is precocity; that is, early maturation of an aptitude or ability before other youth develop it. All so-called characteristics of "gifted youth" are really signs of precocity. When we say "large vocabulary" we mean larger than expected for the age of the child. If we say "learns rapidly and easily" we mean more rapidly and easily than is typical for children of the same chronological age. So, rather than a mere discovery, the development of these precocious talents becomes a process of increasing awareness on the part of child, parents, teachers and mentors that special abilities are present and that further encouragement and support will be needed to develop them to a high or expert level of excellence. The lesson has become clear for precocious or talented youth. New learning should be at an appropriate level and pace to maintain the motivation of a challenge and to evoke a sense of competence or competence motivation (White, 1959) in children. Boredom is the absence of challenge (Feldhusen & Kroll, 1985) and interest; it is destructive to motivation. Highly talented youth need instruction at a level and pace to fit their precocity. Enrichment activities alone usually do not meet this criterion.

As has been widely recognized in the field and variously practiced in schools, talented youth need accelerated instruction in their areas of talent precocity. Snow (1987) described the learning potential of highly able youth as involving more complex and abstract approaches to the subject matter while children of average or low ability need more concrete, less complex and more directive learning experiences. Clearly, in their areas of special strengths talented youth need differentiated curricula and differentiated teaching methods.

Program Services

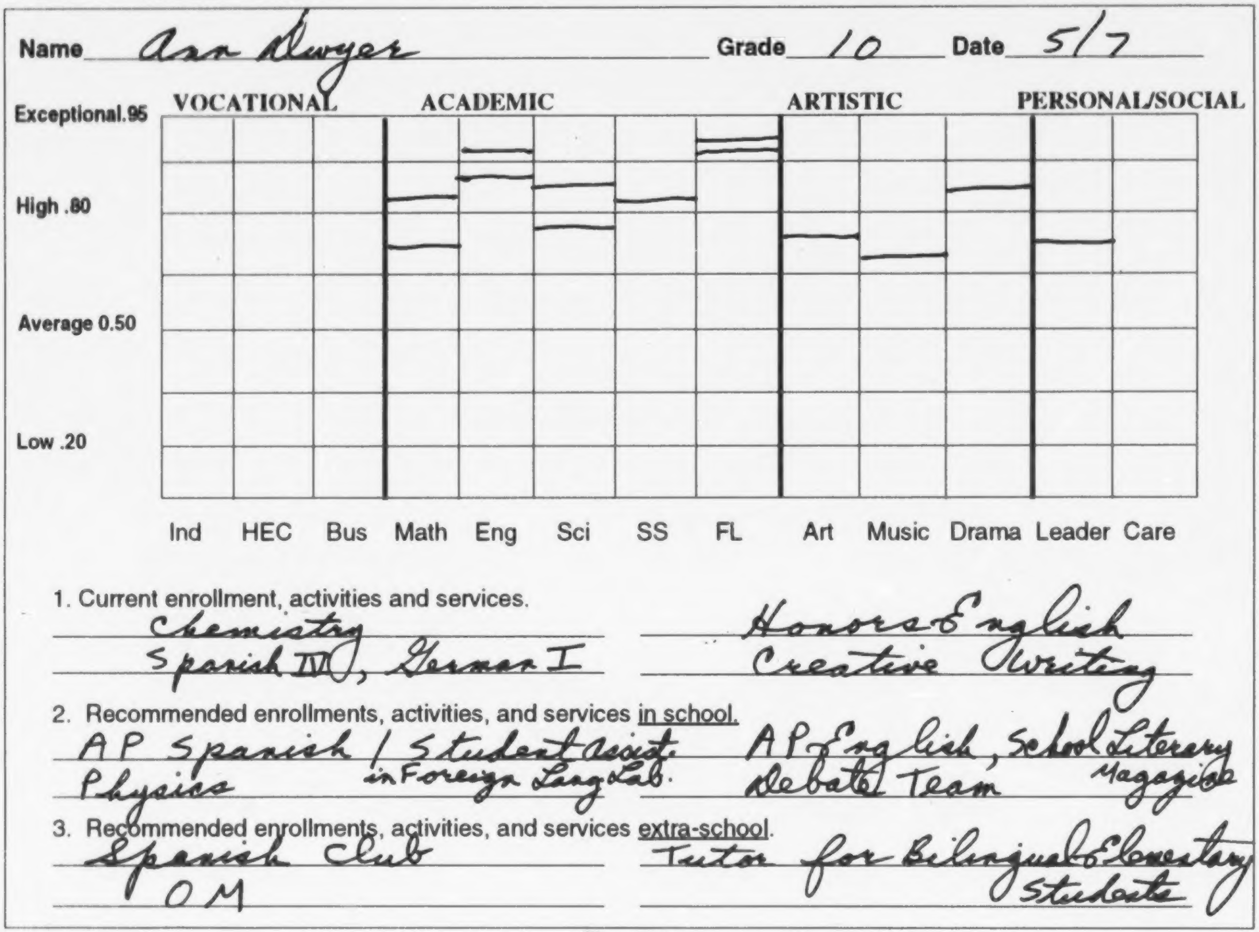
In addition to differentiated classes and methods, extracurricular programs can be instrumental in addressing talents in the academic, artistic, vocational and social-personal realms (Feldhusen, 1992). After-school and Saturday classes, summer programs, extracurricular learning programs, and classes outside of school in community agencies such as museums and colleges can all be sources of accelerated instruction appropriate for talented youth. In school, honors, advanced placement and special grouping all afford excellent opportunities for talented youth. Clubs in science, math, languages, debate and chess also offer good talent development potential. Outside of school early college courses taken while in middle or high school are potentially challenging learning experiences. Art museums and institutes may offer classes for artistically talented youth. A smorgasbord of talent development opportunities should be available to meet the needs of talented youth for accelerated learning opportunities.

Talented Youth Plan for their Own Development

Towards a solid and on-going development of students' talents, early recognition and understanding of their strengths is essential. This can then be followed by clarification of goals, planning their own educational experiences and the seeking out of resources and activities that will optimize their development. Figure 1 presents a profile form completed for Ann Dwyer, a 10th-grade participant in her public high school's Talent Development Strategic Planning program. The form visually depicts Ann's relative talent strengths and weaknesses in the four domains of academic, artistic, vocational and social-interpersonal talents. These scores derive from IQ and achievement tests, rating scales and personality and interest inventories; in some cases there were multiple measures of a talent. (Scores from rating scales are usually in percentages since percentiles are rarely available.) Ann's percentages represent her total score divided by the maximum possible score and multiplied by 100.

Our interest in the assessment of talent is both normative and relative within the student. How

(Continued on next page)



Name Ann Dwyer Grade 10 Date 5/7

1. Current enrollment, activities and services.

Chemistry — Honors English
Spanish IV, German I — Creative Writing

2. Recommended enrollments, activities, and services in school.

AP Spanish / Student assist. in Foreign Lang Lab. — AP English, School Literary Magazine
Physics — Debate Team

3. Recommended enrollments, activities, and services extra-school.

Spanish Club — Tutor for Bilingual Elementary Students
OM

Figure 1

does he/she compare with others (percentile), and what are the relative strong and weaker talent areas within the student? The graphic representation of talents serves to give a more concrete picture of abilities than sheer, abstract numbers.

The data from Ann's profile analysis was then used as a basis for creating her "Growth Plan;" an exemplar of this form is presented in Figure 2. Block 1 of the Growth Plan represents a review of past achievements that can be used for future planning; it also calls for assessment of interests and learning styles if possible. All of the information in Block 1 can be assembled by the students with help from counselors, teachers and/or parents.

When the information for Block 1 is assembled, the next stage in growth planning is goal setting (Block 2). Here again, consulting counselors, teachers and parents can be helpful in the formulation of short- and long-term goals in the realms of academics, career, personal and social development. Then, using information from Blocks 1 and 2, planning course selections for the next year can be completed (Block 3).

At the high school level options for the talented are more numerous and possibilities for flexibility are greater. At elementary and middle school levels, acceleration to a grade higher than the age-appropriate one is often virtually the only intervention offered to highly talented students. Districts and individual schools vary in receptivity to such advancement situations as a 7th-grader taking algebra or biology or a 5th-grader attending art classes at the high school level.

Block 4 calls for planning and selection of extracurricular school activities commensurate with a student's talents and goals. For verbally gifted youngsters, like Ann Dwyer, participation in a writers or debate club or Future Problem Solvers may be ideal, while for a leadership-talented youth, participation in Future Business Leaders of America or

(Continued on page 14)

Block 1

Growth Plan

Name________________________ Phone (____)________________

Grade level________________________

Current courses________________________

Clubs, organizations________________________

Awards, honors________________________

Test scores________________________

Talent strengths________________________

Interest analysis________________________

Learning styles________________________

Block 2 Block 3

Student's own goals (especially as related to talent/strengths)	**Recommended classes for next year (stress linkage to talent strengths)**
Recommended activities (especially in talent strengths and creative activities) Block 4	**Recommended extra-school activities (especially in talent strengths and creative activities)** Block 5

Final plan____

Figure 2

Talent Development

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student government might be indicated. Those talented in dramatic arts can profit from participation in student theatre production, and artistically talented students might choose to work on art aspects of student publications.

The final task (Block 5) is for planning for and seeking out resources and activities in the community at large that afford opportunities for talent development. For Ann, this included applying to be a tutor for bilingual elementary students. For others, Block 5 components might include museums, junior colleges, institutes, mentor programs, lecture series, art exhibits, drama societies or community theatre.

So far, several hundred youth have developed personal growth plans. The process takes only four to six hours per year and is best done in spring as a guide for the following school year. Once drafted, students can take their plans home for discussion with parents, and copies of final drafts are often left with counselors who can meet with the student periodically to assess progress, identify problems and assist in overcoming obstacles.

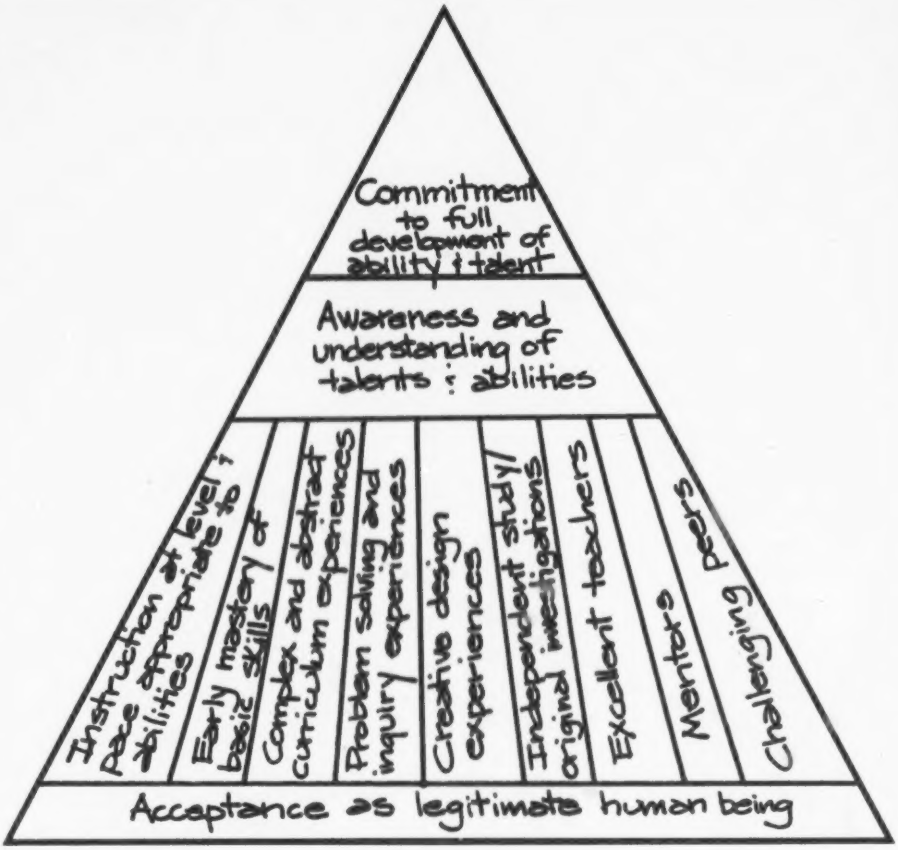
Commitment to full development of ability & talent
Awareness and understanding of talents & abilities
Instruction at level & pace appropriate to abilities
Early mastery of basic skills
Complex and abstract curriculum experiences
Problem solving and inquiry experiences
Creative design experiences
Independent study/original investigations
Excellent teachers
Mentors
Challenging peers
Acceptance as legitimate human being

Figure 3

The ultimate goal of using a talent development plan is the commitment on the part of the student to the development of his or her own talent as represented in the pinnacle of the Purdue Pyramid depicted in Figure 3. At the base is a fundamental condition for all youth — acceptance by peers, parents and teachers as a legitimate human being. Above that personal base, we suggest a wide range of experiences intended to encourage, reinforce and enhance emerging talent strengths. Out of those experiences and with help from test data and review of past experiences, comes individual understanding of talent strengths and commitment to full development.

REFERENCES

Bloom, B.S. (Ed.) (1985). *Developing talent in young people*. New York: Ballantine Books.

Dweck, C.S. (1986). Motivational processes affecting learning. *American Psychologist*, 41(10), 1040-1048.

Feldhusen, J. F. (1992). *Talent identification and development in education (TIDE)*. Sarasota, FL: Center for Creative Learning.

Feldhusen, J. F., & Kroll, M. D. (1985). Parent perceptions of gifted children's educational needs. *Roeper Review*, 7, 240-252.

Gagne, F. (1985). Giftedness and talent: Reexamining a reexamination of the definition. *Gifted Child Quarterly*, 29(3), 103-112.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Snow, R. E. (1987). Aptitude complexes. In R. E. Snow & M. J. Farr (Eds.), *Aptitude, Learning, and Instruction: Conative and Affective Processes* (pp. 11-34). Hillsdale, NJ: Earlbaum.

White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*(5), 297-333.

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baseline information about the incidence and type of arts opportunities, particularly in the visual arts. The authors noted there were arts programs, but very few of them within the context of gifted and talented education. Recently, the authors revisited the issue of arts programs for talented students and noted that little had changed from their initial report (Clark & Zimmerman, 1994). The lack of consistent and substantial opportunities in the arts is so widespread that VanTassel-Baska (1989) commented that the need for curriculum differentiation was moot. There is, she noted, little to differentiate. Although we believe the arts to be important; we have been less successful in establishing the arts as expected domains for talent development in the schools.

National Standards in the Arts
As part of the standards-based reform movement, a coalition of professional arts organizations developed standards which propose what students should know and be able to do in the disciplines of visual arts, music, dance and theatre (Consortium of National Arts Education Associations, 1994). These standards provide the springboard from which to develop school-based initiatives in the arts.

The importance of school-based initiatives becomes increasingly apparent as we learn more about the development of high level talent in the arts. First, as Feldman's (1986) work on prodigies indicates, talents in some areas of the arts, music for example, develop early and with speed. These talented young people must be nurtured during the passage through adolescence to develop fully as artists in adulthood.

Second, arts opportunities are often a "paying proposition." Parents who are financially able to do so, rely on private lessons and tutors to develop these prodigious talents. There are, however, homes which do not have the resources to provide such opportunities. These families rely on public education to provide the enriching and important opportunities in the arts. To develop high level talents among these low-income youth, school programs are the primary, perhaps the only, avenue.

Third, the existence of national standards in the arts sends a message to the public and to decision-makers that the arts are considered a part of "basic" education. We expect our youth to cipher, to write *and* to listen knowledgeably to a sonata.

In the national standards document, five overarching outcomes for young people to master upon completion of secondary school are proposed. The outcomes are:

1. Students should be able to communicate at a basic level in the four arts disciplines—dance, music, theatre and the visual arts.
2. Students should be able to communicate proficiently in at least one art form.
3. Students should be able to develop and present basic analyses of works of art from structural, historical and cultural perspectives.
4. Students should have an informed acquaintance with exemplary works of art from a variety of cultures and historical periods.
5. Students should be able to relate various types of arts knowledge and skills within and across the arts disciplines.

To flesh out these outcomes, the standards document suggests both content and achievement standards in the four arts disciplines—dance, music, theatre and the visual arts—by three age/grade clusters. Thus, the specifics of the standards are presented for grades kindergarten through 4, grades 5 through 8, and grades 9 through 12 with accompanying expectations. There are two kinds of standards: content standards and achievement standards. The content standards describe *what* students know and do; the achievement standards indicate *how well* they accomplish the outcomes. In three arts domains—dance, music and the visual arts—the content standards remain constant across grades, but the level of sophistication, or the achievement standard, for student accomplishment increases as the student moves into middle and secondary school. In the fourth area, theatre, both the content standard and the accompanying achievement standards increase in difficulty. For example, in grades kindergarten through 4, a content standard in theatre states that students will act by assuming roles and interacting in improvisations. In grades 5 through 8, the content standard states that students will act by developing basic skills to portray characters who interact in improvised and scripted scenes. In grades 9 through 12, the content standard states that students will act by developing, communicating and sustaining characters in improvisations and informal and formal productions. Thus, for theatre, the authors have suggested progres-

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sively more complex content standards, as well as achievement standards, as students move through the grades. In addition, for theatre outcomes, students may be recognized as either proficient or advanced. Thus, recognition for extraordinary talent is built into the expectations for theatre. Figure 1 provides an example content standard for each of the four arts disciplines by grade level cluster.

Figure 1

Example Content Standards from the National Standards for Arts Education*

Dance

Understanding choreographic principles, processes, and structures.
Applying and demonstrating critical and creative thinking skills in dance.

Music

Improvising melodies, variations, and accompaniments.
Evaluating music and music performances.

Theatre

Directing by planning classroom dramatizations (grades K-4).
Directing by organizing rehearsals for improvised and scripted scenes (grades 5-8).
Directing by interpreting dramatic texts and organizing and conducting rehearsals for informal or formal productions (grades 9-12).

Visual Arts

Understanding and applying media, techniques, and processes.
Understanding the visual arts in relation to history and cultures.

* Note: These example standards were developed by a Consortium of National Arts Education Associations. For the full list of content standards and their achievement levels in dance, music, theatre and visual arts consult the document cited in the references section.

Talent Development and Talented Students

How might we use such standards to develop the talents of adolescents in dance, music, theatre and the visual arts ? Are there challenges we face? Boundaries to negotiate? For educators, are there preferred models to implement? For parents, are there important questions to ask when making decisions about schools?

One of the key issues to consider is the relationship between an arts curriculum for all students and the need for specialized arts training for students talented in the arts. In a review of the literature on arts in the curriculum, Shore, Cornell, Robinson and Ward (1991) noted that recommendations to include arts in the curriculum constituted good general educational practice. Because the arts provide an important vehicle for self-expression and communication with others, every student should have the opportunity for such experiences. Indeed, educators and parents of gifted children routinely support the arts in schools and communities. In addition to advocating for general talent development, however, it is also *necessary* to provide specialized experiences for youth with the potential for high level performance in the arts. These two advocacy efforts are complementary; one builds upon the other.

There are models in the field of gifted education which demonstrate how to join the twin initiatives of general talent development and specialized training in the arts. One project which has successfully combined general and specialized arts training, Talent Beyond Words, was funded through the Jacob K. Javits Gifted and Talented Students Act. It demonstrates how to provide the foundation for talent development in dance and music for students, how to identify potential for high level performance capability from among members of the group and what to do to assure the upward, unfettered trajectory of those students with gifts and talents.

The Javits-funded project provides dance and music experiences in classrooms over several months. Teachers with training in the arts and in the nature and needs of talented students undertake a series of lesson-observations to give all students opportunities and instruction in the arts. Simultaneously, they are scouting for students with the potential for high level performance. Subsequently, these students with specialized talents will attend master classes which offer small group instruction at a level challenging to them (Baum, Owen & Oreck, in press). Although this particular project focuses on elementary students, the model is quite applicable to students in the secondary school as well. The progressive two-part approach encourages talent development for

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many students and does not artificially restrict the performance of highly proficient young performers.

Integrated Arts Experiences for Talent Development

A second key issue for consideration is how to organize the curriculum to allow students to make connections among the arts disciplines and to promote the excitement of arts in action. The important, practical corollary to this key issue is that we must design and implement programs in such a way that schools with limited budgets and personnel not trained in the arts or in arts education will confidently initiate and maintain arts curricula.

We have examples of arts experiences which do offer integrated curricula on which teachers and artists might collaborate; a project funded by the Arkansas Department of Education, Music Theatre (MT) Stage, integrates music, dance and theatre through the use of a specialized dramatic form—music theatre (Corbell & Robinson, 1994).

Students in the middle school are given the opportunity to learn generally about music theatre from teams of teachers and practicing professionals. Using music video as the entry point, students examine music theatre historically and structurally and learn the differences among music theatre, musicals and opera. To develop expert talents, students then select a focus area in script writing, vocal and dramatic performance, or music composition. Instruction is organized with flexible grouping of students in each of the focus areas. One example activity is to write, direct and perform an original music theatre piece.

Another is restaging a classic play as a music theatre performance. The restaging might be a direct use of the dramatic material or a transformation of it. An example of direct use of dramatic material is the musical production, *Les Miserables*, a treatment based on Victor Hugo's novel of the same name. An example of a transformation is *West Side Story* which is based loosely on Shakespeare's *Romeo and Juliet*. Both types of adaptations require the integration of drama, dance and music. If the adaptations also involve formal stage production, the visual arts are then included in set design. The integrated design of MT Stage emphasizes the interweaving of the arts disciplines to accomplish performance but preserves the integrity of each arts discipline for its youthful performers.

The arts provide important domains for talent development. Dance, music, theatre and the visual arts enrich the lives of the participants, the highly proficient young artist and the happy dabbler in the arts, as well as their audiences. We must advocate vigorously for arts experiences in the schools which lay the foundation for general talent development, and we must insist that these experiences permit no ceiling to the development of specialized arts talents.

REFERENCES

Baum, S., Owen, J. & Oreck, B. (in press). Talent Beyond Words: Identifying potential talent in music and dance in elementary students. *Gifted Child Quarterly.*

Clark, G. A., & Zimmerman, E. (1994). *Programming opportunities for students gifted and talented in the visual arts.* Storrs, CT: National Research Center on the Gifted and Talented.

Consortium of National Arts Education Associations (1994). *National standards for arts education: What every young American should know and be able to do in the arts.* Reston, VA: Music Educators National Conference.

Corbell, L. D. & Robinson, A. (1994). *MT Stage: A proposal to the Arkansas Department of Education.* Little Rock, AR: Center for Research on Teaching and Learning.

Eisner, E. (1982). Aesthetic education. In H. E. Mitzel (Ed.). *Encyclopedia of education (Vol. I)* (pp. 87-94). New York: Free Press.

Feldman, D. H. (1986). *Nature's gambit: Child prodigies and the development of human potential.* New York : Basic Books.

National Endowment for the Arts (1988). *Toward civilization: A report on arts education.* Washington D. C.: Author.

Shore, B. M., Cornell, D. G., Robinson, A., & Ward, V. S. (1991). *Recommended practices in gifted education: A critical analysis.* New York: Teachers College Press.

VanTassel-Baska, J. (1989). The disadvantaged gifted. In J. F. Feldhusen, J. VanTassel-Baska, & K. Seeley (Eds.). *Excellence in educating the gifted* (pp. 53-69). Denver, CO: Love.

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Susan Winebrenner

Above and Beyond

Enhancing Motivation and Productivity in Secondary Students

Do you recognize this child? A gifted adolescent comes to class but daydreams most of the time; she *could* do the work, but does not; and, what's more, she gets an "A" on a final test without much preparation.

In reality, this youngster, and many others like her, would love to do their work. Unfortunately, before getting to their own they must first do the teacher's, and far too many of them reasonably can't or won't take on designing the ways and means of challenging themselves. Parents report how these kids stretch themselves intellectually and work diligently in areas in which they are highly interested; therefore, knowledge of specific strategies for improving school learning productivity for these exceptionally capable teens can prove essential for parents and teachers.

It's important to keep in mind that such students differ from their age peers in several ways:

- They learn new material in much less time.
- They understand most material in greater depth.
- They remember what's been learned over time with little or no review.

Even as curriculum becomes more integrated and realistic, national reports acknowledge the need for differentiation for the gifted with respect to the degree of abstraction and depth of topic. "The best programs. . . educate all students not by giving them identical assignments, but by setting for each child individually appropriate expectations. In such programs, there is no ceiling on a child's aspiration; no perfect grade within easy reach" (National Research Council, 1989, p. 29). Simply stated, *designing learning activities in which all students are learning at the same level and depth denies the reality of the diversity of most classrooms.* Gifted students must be given full credit for what they already know and, when appropriate, opportunities to work on extension projects of authentic value instead of regular work.

Compacting (Renzulli & Smith, 1978) allows students to "compress" required curriculum into a shorter time period. **Differentiation** allows students to extend grade-appropriate concepts by doing *different* tasks. "Extra credit" is to be avoided, since it is predictably resisted by savvy students who learn to slow down so they never have to do more than other kids. The goal for *all* students is to experience the struggle and challenge that accompany true learning.

Teacher Guidelines on Curriculum Compacting & Differentiation

1. At the beginning of each instructional unit, offer as a pre-assessment opportunity what will be used to evaluate learning at the unit's culmination.
2. Work with students who demonstrate mastery (but not perfection) to design an alternate learning activity that will extend the same general unit topic.
3. Expect these students to participate in regular learning experiences when you are teaching what they have not mastered.
4. Invite these students to join the entire class for events such as speakers, a laser-disc presentation, games and simulations.
5. Be available to coach and support students working on differentiated activities. Remember they are working now at their challenge levels, and all students need teachers when they are struggling to expand their learning repertoire.

If you are a parent, you may not feel right about asking your children's teachers for specific alterations in their school program, but be prepared to do so. Talk in depth with your teens about their situation; discuss self-advocacy and its empowerment, and encourage them to approach teachers with these ideas as well.

Caution, parents! If teachers use compacting and differentiation, increased struggle on the student's part is to be expected. Grades may slip as challenging material is undertaken. Be supportive in your child's experience of learning that even highly intelligent people need to work hard, and that one can struggle to learn and still be "gifted."

REFERENCES

National Research Council. (1989). *Everybody counts; a report on the future of mathematics education.* Washington, D.C: National Academy Press.

Renzulli, J.S. & Smith, L.H. (1978). *The compactor.* Mansfield Center, CT: Creative Learning Press.

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In Search of Serendipity

Creative Ventures

Creativity Jump-Starts

Here are a few suggestions for jump-starting run-down creative batteries; plug them in now if you need to, or stow them in with the cables for use on one of those low-juice days.

- Describe five or more ways to build a house without using wood.
- What new sweatshirt design would encourage people to read Shakespeare?
- Create 10 new uses for old neckties.
- Name five things that spin.
- Name five constructive uses for old tires.
- Draw your name by using broad, sweeping cursive writing. See if you can manipulate the letters, by extending or slightly changing them, into the shapes of animals or other objects.
- Invent a new holiday. What would it commemorate or celebrate?
- How would life change if human beings could see only in black and white?
- What is the most creative way you might use 60 minutes more daily, if days were all 25 hours long?
- For decades few people wore baseball caps backwards, but today we seldom see those logos in front. What's next in clothing trends?
- Think of a new invention that combines two existing tools or objects. (For example, some fast food restaurants provide plastic "sporks.")
- In what ways might life in an undersea city be different from life as we now experience it?
- Design a postage stamp to commemorate the most exciting moment in your life.
- How would schools be different if students and/or teachers could bring their pets along?
- Imagine that it's the year 2016 and Power Rangers are out. What do you do with 100 old, used and forgotten Power Ranger action figures?
- You just learned you're moving from Colorado to Florida. Better come up with five new uses for snow boards in the tropics — fast!

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CONFERENCES

Creative Problem Solving Institute. "Exploring the Dynamics of Creativity," June 18-23, Buffalo, NY. 800-447-2774/ FAX716-675-3209.

Hollingworth Center for Highly Gifted Children. "Developmental Differences: Issues Facing the Highly Gifted Child," May 6-7, Cambridge, MA. 617-787-4528.

Michigan Alliance of Gifted Education. May 5-6, Lansing. Sylvia Buie, 517-676-1051, ext. 242.

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Next Issue:

EXPLORING CREATIVITY

Guest Editor
Mark A. Runco

Is Every Child Gifted? Specifying Creative Talents
Mark A. Runco

Creativity as Passionate Commitment
Jerry Flack

Creative Problem Solving
Donald J. Treffinger

Important!

As we go to press, funding for the Jacob K. Javits Gifted & Talented Students Act is in danger. Contact your U.S. Senators to support the only federal program directly funding research and projects in gifted education.

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UNDERSTANDING OUR GIFTED®

Dedicated to helping gifted children reach their full potential

May/June, 1995

Volume 7, Issue 5

Creativity As Passionate Commitment

Jerry Flack

There is a popular misconception that creative people are oblivious to details, never meet deadlines and are mostly off dancing with moonbeams. While this image is, like those of most stereotypes, grossly inaccurate, nevertheless it is a description worn proudly by some self-declared creative people. One middle school student introduced himself to the author on the first day of class with the declaration that late, messy papers filled with spelling errors should be expected because he was a "creative person." A review of some of the work habits and productivity of creative people will easily dispel this and other similar stereotypical notions and show that the act of creating involves hard work. As we will see, creativity is not for wimps!

Young people must have models of excellence. Whether these models are living mentors or historical figures, youngsters with fledgling passions of their own need to be acquainted with people who are or were passionate about their craft or art and not afraid to roll up their sleeves, pitch in and work hard. Of

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FOCUS ON:

EXPLORING CREATIVITY

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New Dimensions in Creativity

Mark A. Runco

Brooke is a 9-year-old girl with outstanding verbal skills manifested in her well-above average reading and her diverse expressive compositions. Her soccer, karate, and hula performances are also outstanding, even compared to her capable classmates who have the generally good balance and hand-eye coordination of most children.

Brooke's brother, Ray, is 4 years old. He too loves to read, but he relies mostly on pictures and context for meaning. He also has that knack for saying surprisingly mature things when his parents least expect it. Still, Ray's real strengths are primarily visual and spatial. He has already made great headway in capturing perspective and proportion in his drawings. His fascination with certain things (e.g., vehicles, dinosaurs) wouldn't surprise any parents, but his drawings can easily be mistaken for those of a child twice his age.

As a group, gifted children share certain specific traits which allow for their identification and classification. They also differ from one another in many ways, just as Brooke and Ray, both gifted, differ in their verbal and visual strengths.

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PROLOGUE

What is creativity? Must a creative work be original to humankind or merely to its creator? What connection does creativity have to gifted children and to gifted education in general?

As we focus on the multi-faceted area of creativity, our writers have each chosen a unique approach to this fascinating topic. Guest Editor Mark Runco shares his own creative thinking in discussing how approaches to their creative processes can make a difference to gifted children. Jerry Flack, our resident expert on creativity, emphasizes the hard work involved in pursuing passionate commitment, pointing out that "creativity is not for wimps!" And Don Treffinger explains and explores Creative Problem Solving.

"Tactics" guest columnist Evelyn Christensen shares an exciting math discovery adventure; her approach is fresh and direct, and, as one of our staff has remarked, "It makes me smile." In this issue we introduce "ParentSpace," a column written by and for parents, coordinated by our own editor Laura Goodman, who juggles her time as a talented writer and a gifted mom.

Please continue to send your thoughts and experiences as parents of gifted children. We now have a place to highlight them.

D.K.

Tactics

A Discovery Adventure with Multiplication Facts

Evelyn B. Christensen

For me, the numbers 1-9 have always had personalities, and over the years I've come to realize that this isn't a common way of thinking about them. I suppose that somewhere back in my early mathematical experiences, when the whole thing with numbers was very boring, this anthropomorphic approach gave them some interest.

Now I don't make a habit of discussing the personalities of numbers with other people; however, recently I found it useful when helping my 7-year-old son practice his multiplication facts. Stephen understands the concepts and can figure out answers given enough time, but we were working on fast recall. He was having trouble with the higher numbers, so when he was stuck on 7 X 7, I said, "Try thinking about it this way: 7 really wishes he could be big and important. He'd like to reach at *least* halfway to 100, but you know what? He never can by himself. No matter how hard he tries he always falls one short. What do you suppose 7 X 7 is?"

His face lighting up, he grinned and promptly said, "49!" He hasn't missed 7 X 7 since. Number Seven's personality helped him to fashion his own useful "memory hook."

But the story doesn't end there. While 7 X 7 no longer gave Stephen trouble, 6 X 8 did. So I tried relating it to 49: "You already know 7 X 7 is 49. Just remember that 6 and 8 come on either side of 7. Their product is 1 less than the 7s." That seemed a feasible mnemonic device for him, so, as we rode along in the car, we went on to 4 X 6.

He thought for a few seconds and then said triumphantly, "24!"

I could tell that he hadn't spent time counting up by 4's or 6's, and since I'm always interested in the process of mathematical thinking, I asked him how he got his answer. His response made me do a mental retake.

"Well," he said, "5 X 5 is 25 and since 4 and 6 are on either side of 5, the answer is 24."

He was absolutely right, of course, but was this just a coincidence? My "6 X 8 is 1 less than 7 X 7" was offered as a catchy way to remember a number and not intended as a rule. We checked some other examples, using odd numbers (assuming the pattern was applicable only to those because the first two squares that worked for us were odd), and by the time we reached our destination and had to stop, we'd verified

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Tactics

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our new rule for odd squares under 10.

The next afternoon, once again in the car, we resumed our figuring, and it didn't take us long to branch out into even numbers. With each new example we tested and found fit our rule, our excitement grew. By the time we picked up his older sister at middle school, Stephen was bursting with excitement and begged me to let *him* be the one to tell Susan about our discovery.

As soon as he explained it to her, she immediately began testing her own examples beyond 100. "Yep! It works for 11. 11 X 11 is 121, and 10 X 12 is 120. What's 12 X 14?"

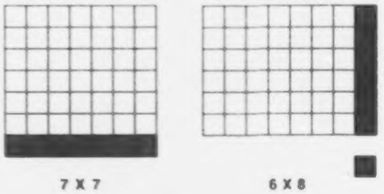
I had to figure for a minute. "168."

"Yep! It works for numbers as big as 13-squared." She was off and running with this new idea. "It even works for 1 and 0. You know, sometimes a rule will work for everything else, but won't for one of those."

By this time, of course, the next logical step was to figure out algebraically why this pattern worked. Susan is taking algebra, so I said to her, "We've got a number x and we're multiplying (x - 1) times (x + 1). What does that give us?" The answer was immediate and obvious to both of us. "$x^2 - 1$. Of course, the rule is going to work for every example!"

Such an obvious bit of algebra. Why hadn't we realized it? But how often is algebra used to learn basic multiplication facts? It was a new and different and exciting experience for all three of us. Perhaps the most exciting part was our discovering a relationship other students could use in learning their multiplication facts.

But, still, we weren't quite finished. The algebra equation had naturally provided a satisfactory sense of completion for my seventh grader, but I wanted to be sure that Stephen understood why this relationship worked. A set of square tiles made this possible. We built a 7 X 7 array (Figure 1). Then Stephen slid the tiles around to make 6 X 8 and saw that there was one tile left over. He built lots of other examples, always with one extra tile left; visually now, this new rule made sense. (Perhaps, on another day, we'll even try an extension. What happens if instead of taking numbers that are 1 more and 1 less than 7, we try ones that are 2 more and 2 less?)



When I was Stephen's age, I thought math was boring. Clearly, it doesn't have to be! Creativity and the excitement of shared discovery are precious gifts; Stephen would recommend them for any child you know.

Evelyn B. Christensen has doctoral degrees in mathematics education from University of Kentucky and has taught math at both elementary and university levels. The author of ***Clip Clue Puzzles,*** a book of problem solving activities, she is the mother of 3 gifted children.

Highlight

Creative Problem Solving

Donald J. Treffinger

If educators are limited to yesterday's techniques and resources, we cannot expect to be effective in identifying or developing talents, or in teaching for tomorrow. Miles and Louis (1990) emphasized the importance of shared vision building, creative thinking and collaboration in school improvement and highlighted emphatically the importance of training staff members in team building, decision-making and group problem solving. Their message to educators was clear:

> *The problems arising...are multiple, pervasive and sometimes nearly intractable. In our schools, they ranged from 'no place for seven new counselors to sit' to 'delayed funding' to 'staff skepticism,' 'the vice principal's heart attack' and 'conflicts in the classroom.' Good problem coping (dealing with problems promptly, actively and with some depth) is the* ***single biggest determinant*** *of program success (p. 60; emphasis in original).*

Creative Problem Solving or CPS (Isaksen, Dorval & Treffinger, 1994; Treffinger, Isaksen & Dorval, 1994a) offers a powerful set of methods and techniques to help educators succeed in these efforts. Any creative attempt to solve any problem can be considered "creative problem solving" (lower case). We use CPS (upper case) to refer to our particular framework. This approach has emerged and grown through

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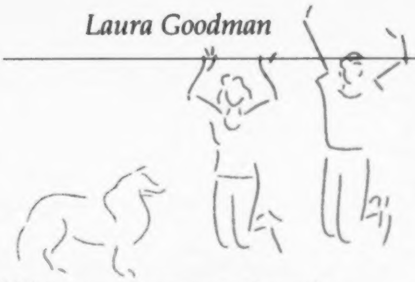
ParentSpace

Small Scale Creativity

Laura Goodman



Whatever the present issue's theme, that's what seems to be the topic of interest and conversation around this office. No surprise then that for the past few months we've been talking creativity. From our wide gauge of information, research and theory of creativity, I shifted my focus to a measure more personal and everyday — the life of our resident 9-year-old gifted child. I was interested in how creativity surfaces in his thinking and in what he says and does, and the examples from *all* walks of his life are legion. Here's just one: To encourage summer reading in her 2nd graders, his wise teacher offered lunch out to all students who completed eight books before the end of vacation. She told me she always made it student-choice and that she'd spent many a summer lunch hour at the likes of McDonald's and Taco Bell and Pizza Hut. Well, our son read his books in a heartbeat and was soon calling her for a date; sushi, he told her enthusiastically, was what he wanted and named a local sushi bar. Take your credit card, I warned her, and off they went to talk books and eat raw fish.

I realized I could think of a million of these nuggets and knew I wouldn't be alone in that. So I canvassed other parents lucky enough to live with gifted children and asked them to dig into their family files for anecdotes of their children's creativity. This was the question I asked them: Can you think of a creative response to a not-so-creative task-request or situation? Here are their offerings:

• At 3 Thomas was in love with Roman numerals and wanted to know where they came from, prompting his father to sit down with him to discuss history. Dad drew a timeline indicating various periods, and right after he'd written down The Dark Ages Thomas took off running. The next thing his puzzled parents knew, Thomas had shut himself into a windowless, dark bathroom shouting "I'm 3! I'm 3!" The little boy strolled out then and said, "I said my age in the dark – The Dark Ages!"

• Juan's mother suggested it was time to get organized and put away the crayons. Juan had 96 of them and they were everywhere. When his mom checked back some minutes later, she found her 2 year old beaming and those 96 crayons sorted into rows: by greens, blues, reds, every color ordered and arranged down to the merest nuance of shades. Indeed, Juan had found a creative way to follow directions.

• In school, 4-year-old Robin's 1st-grade creative writing assignment was to write sentences based on dots on a page — first page: 1 dot (a bear's nose, for example); second page: 2 dots (eyes of a cow), etc. Robin started off with sentences about a clown's ring and wheels on a car for Dots #1 and 2. After those, though, she'd clearly had enough of sentence writing but carried on anyway. Her dots became "3 rocks. 4 balls. 5 more rocks. 6 more balls. 7 more rocks." Assignment completed.

• At Jim's neighborhood school they celebrated Christmas Around the World by offering students a look into the holiday customs of other lands as well as hands-on opportunities to recreate representative decorations. Jim, the quietest of kindergartners, paused at the Philippine exhibit to admire the construction paper three-fold/two-cut lanterns and make one himself. Well, folds one, two and three led to others and those on to some freelance cutting, and soon Jim had his lantern-turned-spring performing wondrous acts of physics. The other kids loved it and asked for directions; before long there were dozens of springs in action with Jim, their quiet but delighted lab instructor, nodding approval at his "students."

• Liza has started middle school and taken her large vocabulary along, and she's not a bit shy about using it. Not long ago when she remarked that her favorite shirt was getting "old and diaphanous," a classmate looked up Liza's "big" word and took her to task. "Why didn't you just say 'clear'?" the other girl asked. To which Liza replied, "Because I *meant* diaphanous. If I'd meant clear I would have said 'clear.'" No doubt, she would have.

Each of these stories illustrates the phenomenon of creativity in young gifted children in two interesting and, I think, important ways. First in the actions themselves, which bespeak the children's exceptional processes, and then in the parental perceptions and interpretations prompting those specific anecdote selections. With this duality in mind, it seems to me that one of our jobs as parents, whether of a little one

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Surfing the Net

More Computer Network Resources

This month our travel takes us to a new place—**the World Wide Web**—and a look at the language, customs and specific sights.

For many years, people dreamt of a universal database that would easily link pieces of information. During the 1960's this idea was explored further, giving rise in 1989 to what is now known as the Web. The Web project changed the way people view and create information. It is the first true global network. Mosaic, a software interface to the Web, provided people with an easy point-and-click system for getting around. During the past several years, additional software has been developed, and now there are many varieties of Web "browsers."

The Web relies on hypertext for communicating. Hypertext is basically the same as regular text, but it has an important added feature. It contains connections that point to other related documents and resources that may be selected by the user. These pointers are called "links" or "hotlinks." Hypermedia documents contain links to other forms of media — sounds, images and full motion videos. Here's one example:

You are a student reading the digital version of an art magazine. With a click on the computer screen, you can select a sample of an artist's works to display graphically, and you can print it.

Web clients and servers communicate with each other with HTTP (HyperText Transmission Protocol). Web addresses often include the letters <http>. The standard language used to create hypermedia documents is ".html" (HyperText Markup Language). HTML uses URLs (Uniform Resource Locators) to represent both hypermedia links and links to network services within documents. Here's an example of a URL:

URL http://www.ed.gov

The first part of the URL (before the two slashes) specifies the method of access or, in this case, the transmission protocol. The second (in this case, www) is typically the address of the computer where the data or service is located. Additional segments of an address may specify the names of files, the port to connect to, the text to search for in a database or the suffix .html. The above example is the URL for the Department of Education home page. What's a home page? That's the name assigned to the first page of an organization's Website.

Here's another example—the World-Wide Web Virtual Library: Subject Catalogue.

URL: http://www.w3.org/hypertext/DataSources/bySubject/Overview.html

Important Hint

You must be highly accurate when typing a URL. URLs are case sensitive and do not have spaces in the address.

Most Web browsers allow a user to specify a URL and connect to that document or service. When I provide information on places to visit, I will include a URL if one exists.

If you need a bibliography on the Internet or the World Wide Web, please send an SASE to *Understanding Our Gifted* and mark the outside envelope WEB.

As your tour guide, I am *finally* taking you on a trip to my "home town." The first address takes you to the ERIC Clearinghouse on Disabilities and Gifted Education, where you will find 32 ERIC digests on gifted students. The second address takes you to another location of resources related to gifted youngsters.

URL
gopher://ericir.syr.edu/11/Clearinghouses/16houses/ERIC-EC
http://www.eskimo.com/~user/kids.html

Have a great time, and let us hear from you when you find exciting information.

The ideas expressed in this article are the author's, and do not necessarily represent the views of the CEC or ERIC Clearinghouse on Disabilities and Gifted Education.

Sandra Berger is the Information Specialist for Gifted Education at the ERIC Clearinghouse on Disabilities and Gifted Education in Reston, Virginia. She is the author of ***College Planning for Gifted Students***.

Gloria Frender

Learning To Learn

Planning Ahead

". . . but I just forgot, and now I don't have time to do it!"

Sound familiar? I know many high-ability youth who are also highly gifted in disorganization. For many gifted students, despite being advanced in so many areas, organizing and planning are real and difficult problems. Too often they become engrossed in their multiple activities and lose sight of how to manage time and accomplish all they want or need to do.

As children progress into middle and high school, their lives move at a faster pace and they can easily become more frazzled with increased work loads, responsibilities and commitments. But even for the most disorganized, there is hope! Providing gifted students with practical and effective time management strategies helps them function within a much needed and more structured framework.

Forming habits of tracking and breaking down school assignments will help in acquiring basic school survival skills. Keep in mind that using these tools may come easier to left brain (sequential) dominant than right brain (spatial) individuals; however, methods may be modified to suit individual needs to insure success for all in improved learning and life-long management techniques.

Tracking and Breaking Down Assignments

1. Assignment sheet or notebook

- Write all assignments on one page.

- Include: full assignment, due date, list of all material needed, estimated completion time and a check-off "Done" column.
- Break down large assignments into smaller units.
- Include sections for "This Week," "Later" and "Exams."

2. Monthly calendar (This facilitates commitment to planning ahead, seeing the whole picture of many weeks at one time and physically writing sequential steps to generate a product on time.)

- Be sure spaces for each day are big enough to write in.
- Place in a notebook/three-ring binder where it can be easily located.
- Use a different color ink for each subject and include the color code key in the corner.

3. Break Down Long-term Assignments (This helps left and right brain hemispheres organize from the complete project to specific steps.)

- Write date assignment was issued.
- Indicate due date as one day earlier to allow time for corrections.
- Count the number of days between assigned date and due date; divide that number and write "1/4," "1/2" and "3/4" on the appropriate dates. Next, write three steps that should be completed for each date.

Example: *[on May 7] 1/4 - Science Report: topic narrowed/ references checked out/note cards half completed; [on May 15] 1/2 - Sci. Rep.: research completed/ note cards organized/begin rough draft ; [on May 22] 3/4 - Sci. Rep.: first draft completed/all research final/begin bibliography*

- Review dates for accuracy, conflicting dates and assignments.
- Make adjustments as required.
- Post a copy in a place that will be seen daily.
- Stick to the schedule.

There's much truth to the saying: "People don't plan to fail — they just fail to plan." Few gifted students are intentionally disorganized; they often simply suffer from the lack of using their time efficiently and effectively. Teachers and parents can help students learn these techniques **now**, so that they may use their precious time to be even more creative, productive, successful and happy.

Gloria Frender, a nationally known educational consultant from Boulder, Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the mother of two gifted children and author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use.***

Problem Solving

Continued from page 4

more than four decades of theory, research and experience in the field.

CPS is a flexible, but structured, framework that can be used by individuals or groups to deal with tasks (opportunities, challenges or concerns) that are important, complex and ambiguous and call for many, varied or new solutions or courses of action. Programming for the gifted will inevitably be concerned with many tasks for which there will not be obvious, ready-made solutions or courses of action. To deal with these issues and goals effectively, educators will need new solutions of their own design, rather than applying directions already developed by others.

Today's CPS model has moved significantly away from the traditionally linear, step-by-step prescriptions for problem solving that dominated peoples' thinking for so long. Back in the elementary grades you probably learned **the** steps in problem solving, or **the** scientific method, but odds are slim that, as an adult, you actually use them in a deliberate, one-step-after-another manner when you're working on a complex challenge in real life. Instead, to better present what problem solvers more naturally do, we organize six specific stages (or sets of tools) into three broad components that may be needed at any point during work on a task. Any or all of the components and tools might be used, depending on the task, situation, people and desired results. There may be movement from one to another, and back again, in no fixed sequence of selection, and without necessarily using every tool. That's right—people will actually have to *think* about their actions and *make some deliberate decisions* as they proceed!

The three broad components, and the specific stages they include (based on Isaksen, et al., 1994 and Treffinger, et al., 1994) are:

UNDERSTANDING THE PROBLEM

....Investigating a broad goal or challenge, and clarifying, formulating or focusing a task to set the principal direction for CPS. For example, school improvement teams or school advisory committees often agree about their task, at least in very broad terms! They might say, "We want excellence in education." But, once they begin to discuss what that task means, they often discover that everyone has a different idea about it. They find that they need to invest some effort in understanding the problem. That effort might involve any or all of three CPS stages in this component.

Mess-Finding....Establishing a constructive goal for CPS. Consider a Mess statement that is broad, brief and beneficial; such a statement often begins with a phrase such as, "Wouldn't it be nice if (WIBNI)..." For that excellence in education challenge, some WIBNI's might be:
•WIBNI all parents supported their children's growth and learning?
•WIBNI every one of our students found an area or domain in which to achieve at a very high level?
•WIBNI our school's graduates were the most sought after in our county or state?

Data-Finding....Exploring, examining and focusing on the most important elements or parameters of a task or situation. What is known about the situation? What is necessary or beneficial to know? Prompt for important data by asking, "Who? What? When? Where? Why? How?"

Problem-Finding....Setting a clear and specific direction for a task that will support an open search for possibilities. In this stage, the goal is to construct or choose a specific problem statement that will open the door for many new and useful ideas. Effective problem statements are concisely worded and usually begin with an open-ended stem that invites creative thinking, such as, "In what ways might we (IWWMW)..." or "How might we (HMW)..." To connect parent involvement with WIBNI, sample problem statements might be:

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ParentSpace

Continued from page 5

or a teenager, is to protect, affirm and allow ample space for the expression and development of this particular gift in all quarters and through the changing seasons of our children's lives.

We've always been happy to hear from our readers by phone, FAX or mail. Now, besides asking for your feedback and opinions, we'd like to encourage you to send us one of your good family nuggets to add to our new UOG Family File. Please indicate whether we may use it in PARENTSPACE and know that all children's names are changed to protect their privacy.

Laura Goodman is the mother of a gifted child, a fiction writer and editor, not necessarily in that order.

Passion

Continued from page 1

course, the equation for successful creative productivity involves more than just task commitment and "elbow grease." It is also erroneous to believe that imagination *without* effort leads to success. But, inspiration for truly pursuing a passion can be found in the shared lives, stories and images of those who respect and prize creativity, inquiry and hard work. These people, contemporary or historical, are the committed creative, whose lives epitomize an unrelenting passion for excellence.

Few would claim that Dame Agatha Christie was a great writer, but there is almost universal agreement that she is among the greatest mystery conjurers of all time. Her ingenious plots are like none other. Moreover, her productive output and success are staggering. Every seven seconds somewhere in the world an Agatha Christie mystery is sold, and her works have been translated into at least 50 languages. In 1916 at the age of 26, she wrote and submitted *The Mysterious Affair of Styles*, which was rejected at least seven times before its publication in 1920. From that point onward, Christie created an awesome mystery literature treasury, producing 67 mystery novels, 150 short stories and 12 plays, including *Witness for the Prosecution* and *The Mousetrap*. She also wrote at least six other novels under the pen name of Mary Westmacott, as well as a posthumously published autobiography. Although royalties from her books made her a wealthy woman, Agatha Christie's prodigious production was due in no small part to a work ethic that found her daily at her writing desk. Neither she nor her best-known sleuths, Miss Marple and Hercule Poirot, had much patience with "slackers."

Johann Sebastian Bach ranks as one of the greatest and most prolific composers of all time. The depth and breadth of both his creativity and productivity is staggering. He composed music for organ, harpsichord, flute, violin, viola, cello, lute and voice; his collected works of cantatas, fugues, concertos, sonatas, masses, oratorios and incidental pieces, sacred and secular, fill 60 volumes and exceed 1,000 separate, important compositions. Bach's life was a marvel of creative productivity, and yet in his own lifetime he was better known as an organist than as a composer!

It has been said that in his 84 years, Thomas Edison took the world from the age of kerosene lamps to one of electric lights, phonographs and motion pictures. He may have received only three months of formal education, but he was a whiz as an inventor, his successes coming through the force of hard work and tenacity. He was a tireless worker who even kept a bed in his office for taking the "cat naps" that allowed him to work his 16- and 18-hour days. The "Wizard of Menlo Park" patented more than 1,000 inventions, an incredible accomplishment no other individual has come close to matching. And though he enjoyed fame, Edison also suffered enormous personal and financial losses that would have defeated many others. It's certainly true that few people have ever generated a global impact of such significance in such a relatively short period of time as did Thomas Edison. Tireless to the end, at the age of 82, he was still working hard, experimenting with thousands of plants in an attempt to find a domestic source of rubber for the United States.

Creative commitment is not just found in the stories of eminent adults. A few years ago, Trevor Ferrell, a Philadelphia 6th grader, witnessed an evening television news program about the homeless in his city. Appalled by the lack of caring Philadelphia citizens extended to the less fortunate, that same evening Trevor took the pillow and blanket from his own warm bed and insisted that his father drive him to an inner-city street where he gave both to a homeless man. The next night, with more blankets and pillows collected in his neighborhood, he returned to the inner-city and passed them out among the homeless living there on the streets. Before the school year

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Passion

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was completed, this 12-year-old boy had mobilized an army of volunteers who joined with him to provide bedding, clothing and a shelter — appropriately called "Trevor's Place" — for Philadelphia's homeless. Trevor Ferrell's talent is not in writing mysteries or composing music or inventing; his talent is in the realm of creative stewardship to humanity. A critical lesson for us to take from this young life's work is an appreciation of his willingness to make his creativity count through the on-going expression of personal commitment.

History is filled with other models of creative productivity among youth. Louis Braille was only 15 when he invented a mechanical system to help the blind read. Sacajawea used her linguistic and spatial gifts as an interpreter and guide for the Lewis and Clark Expedition of the Louisiana Purchase when she was just 16 years old. John Quincy Adams, later to be president of the United States, was only 13 when he served as secretary to the United States ambassador to Russia, and Joan of Arc was but 17 when she commanded all the armies of France.

Of course, not every youth or adult will achieve the fame or success of Agatha Christie, J. S. Bach, Thomas Edison or even Trevor Ferrell. But fame and other extrinsic rewards are not the point. The pursuit of excellence, the passionate love of an art or discipline or service, and the satisfaction of doing one's best combine for the ultimate fulfillment for the creative person. In his Creative Manifesto for youth (in Flack, 1993), one of the very wisest of educators, E. Paul Torrance, writes, "Don't be afraid to fall in love with something and pursue it with intensity" (p. 21).

This kind of passion was personified in Keith Haring's response to his life and work. One of the most original new artists to emerge in the 1980s, Haring's joyful, raceless, genderless art championed freedom in South Africa, reading and literacy in the United States and the combating of AIDS-related prejudices everywhere. His iconographic art, which first adorned subway stations in New York City and later the Berlin Wall, ultimately came to hang in many of the world's great museums. His output was prolific. Perhaps the kind of creative energy and life commitment we're considering here is best summed up by this young artist shortly before his untimely death in 1990. In response to a *Rolling Stone* magazine interview question about his productivity, Haring (in Celant, 1992) said simply, "I wish I didn't have to sleep" (p. 102).

The challenge for wise mentors is in helping young people identify their passion areas of art, mathematics, music, invention, writing, service, science, whatever they may be, *and* to help them discover their own joy in having and pursuing those passions. Mentors can share stories of their own lives as well as those of other creative adults and children who were and are committed to achieving brilliance in their work. Inspiring role models may be found in biographies as well as in contemporary news and feature stories, and adults can encourage young people to be alert to contemporary stories of passionate commitment and creative productivity. Books such as Dennis B. Fradin's (1987) *Remarkable Children: Twenty Who Made History* and Neal Shusterman's (1991) *Kid Heroes: True Stories of Rescuers, Survivors, and Achievers* include inspiring accounts of youths who had great dreams and then labored tirelessly to achieve their goals. In classrooms, establishing "Persistence" or "Achievement" bulletin boards offers students places to pin up news stories about their creative and productive contemporaries.

REFERENCES

Fradin, D.B. (1987). *Remarkable children: Twenty who made history*. Boston: Little, Brown.

Sheff, D. (1992). Keith Haring: An intimate conversation. In Celant, G. (Ed.) *Keith Haring* (p.121). Munich: Prestel-Veriag.

Shusterman, N. (1991). *Kid heroes: True stories of rescuers, survivors, and achievers*. New York: Tom Doherty Books.

Torrance, E.P. (1993). Creative manifesto. In Flack, J.D. *Destinations: Grand visions* (p.21). San Antonio, TX: ECS Learning Systems.

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Problem Solving

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•IWWMW expand our awareness and use of parents' talents?
•HMW create new opportunities for families to learn together?
•HMW enhance our communication with parents about their children's strengths, talents and interests?
•HMW help parents to support or extend topics on which their children are working in school?

GENERATING IDEAS

....Undertaking a search for many, varied and novel options for a well-defined or focused task, and assessing those options to determine the most promising possibilities. An open-ended question (in IWWMW or HMW form, for example) serves as the springboard or starting point in the search for ideas.

Idea-Finding....Applying structured techniques, such as brainstorming, to stimulate the production of options and to guide the process of choosing possibilities. The goals are to generate many ideas (fluency in thinking), to seek variety and new perspectives (flexibility), to produce really novel or break-the-mold ideas (originality) or to refine and flesh out ideas to make them richer and more interesting (elaboration).

PLANNING FOR ACTION

....Exploring ways to make promising options into workable solutions and preparing for successful implementation. There's a difference between a good idea and a workable, useful idea. Here, the goals are to take possible solutions and develop them so they're as strong as possible and to consider steps to give those solutions the best possible chance of success.

Solution-Finding....Applying deliberate strategies to help organize, screen, select and support promising options.

Acceptance-Finding...Considering ways to increase support and decrease or overcome resistance to possible solutions, and planning specific ways to turn ideas into action.

CPS also involves **Task Appraisal** and **Process Planning**. Task Appraisal is a deliberate process to help any individual or group determine whether it might be appropriate and valuable to apply CPS in working on a particular task. Using Task Appraisal helps in taking stock of intended results or outcomes, the people who may be involved, the situation and possible options for applying many methods. If responses to Task Appraisal lead to the conclusion that applying CPS may be helpful, Process Planning provides a structured set of questions to help determine the most appropriate place in the CPS "menu" to be working (at the beginning and as work on the task continues).

The benefits of learning and applying CPS—for adults as well as students—are:

•CPS provides a deliberate, systematic process of guidance and support.
•CPS offers practical strategies that are easy to apply within a group and can be used to deal with a great variety of challenges, tasks, opportunities or issues.
•CPS supports efforts of enhancing teamwork and consensus-building.
•Using CPS promotes a constructive outlook, focusing on what can be done, not on what can't be done or what won"t work.
•Applying CPS challenges participants to clarify and respect ownership of a task or problem. It helps schools, small groups or individuals to define their own important challenges and goals, to work constructively and in natural, comfortable ways on such tasks and to develop their own uniquely appropriate solutions and action plans.

Creative Problem Solving is an extensively-researched framework to be used by children and adults in dealing more effectively with various opportunities and challenges. In providing powerful and practical tools for the mind, CPS offers critical educational support for the creative and talented youth we refer to as gifted.

REFERENCES

Isaksen, S.G., Dorval, K.B. & Treffinger, D.J. (1994). *Creative approaches to problem solving*. Dubuque, IA: Kendall-Hunt.

Miles, M.C. & Louis, K.S. (1990). Mustering the will and skill for change. *Educational Leadership, 47*(8), 57-61.

Treffinger, D.J., Isaksen, S.G. & Dorval, K.B. (1994). *Creative problem solving: An introduction*. Sarasota, FL: Center for Creative Learning.

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New Dimensions

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Therefore, at the same time they are similar in their advanced intellectual abilities but different in the ways those abilities and styles manifest themselves. Creativity is but one aspect or area of potential difference to be considered in the attempt to more fully understand and help these children.

Currently, the field which might be called "creativity research" is booming and many new definitions, models and theories have been proposed. Among these models of creative thinking is one I have developed over the past few years. A description of it is presented here along with an exploration of its implications for those interested in identifying creatively gifted children and optimizing their time with them.

According to Renzulli (1978), gifted children have above average general ability, task commitment and motivation, and creative potential. For practical purposes it is useful to break each down into its constituent parts. Figure 1 depicts my breakdown of creative potential, which includes three primary components (problem finding, ideation and evaluation) on the one tier and two secondary components (motivation and knowledge) on the other. This is largely compatible with other models of creative thinking, though its two-tier division is unique, as are the particular interactions between components.

"Problem finding," representing a family of skills, labels the kinds of things that must happen before an effort is made to solve a problem. Of these skills, one of the most critical is ***problem identification*** in which a situation or task is recognized as problematic. But clearly it is not enough to merely recognize that a problem exists; after a problem is identified but before effort is directed towards solutions, some sort of ***problem definition*** must occur. Careful problem definition insures that the problem is workable. (A good example of problem redefinition is presented by Christensen on p. 3 in this issue.)

Children, even the brightest, may vary in terms of how well they are able to identify or define problems. One child may be very sensitive to certain nuances and recognize a problem as soon as it arises but not know how to transform it into something workable. A second child may not be sensitive in that same way but might be unusually adept at taking a general or ambiguous problem and breaking it down into manageable issues. Parents and teachers should be alert for both problem identification and problem definition and make efforts to exercise each. (Again, refer to p. 3 in this journal.) In addition to providing a better understanding of children, both the gifted and their more typical peers, attention to problem finding skills will very likely insure that they are intrinsically motivated. When children identify and define problems, they have invested something of themselves and subsequently have more interest in seeing the problems through. That *is* intrinsic motivation.

The next component in Figure 1, probably the best known, is usually referred to as divergent thinking. However, ideation is a more accurate label because ideas may not be exceptionally divergent, at least in a literal sense. Like the problem finding component of creative thinking, ideation can be subdivided for more sensitive assessments of the potential of children and for more task-specific exercises. ***Ideational fluency***, for example, manifests as the ability to

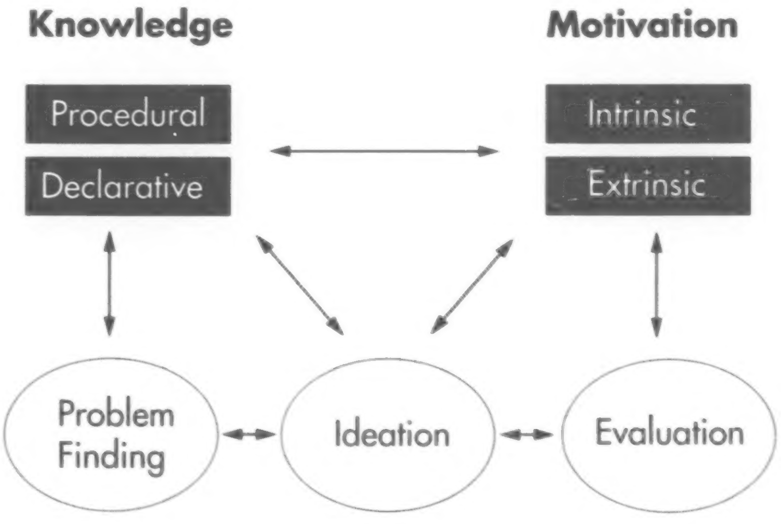

Figure 1

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produce a large number of ideas. ***Ideational originality***, on the other hand, allows the individual to generate original or unusual ideas. ***Ideational flexibility*** leads to the production of ideas in a variety of categories. Besides constructing profiles for individual children, the different kinds of ideation suggest different kinds of activities.

The least recognized and most misunderstood component from Figure 1 reflects what I call evaluation skills. These are often overlooked because they are in some ways similar to traditional critical thinking skills which are easy to dismiss when working on *creative* thinking. This is another reason to focus on ideation rather than divergent thinking. Divergent thinking skills are defined such that they contrast with convergent skills, correct or conventional ideation. Also, evaluative thinking differs from traditional critical thinking in that it reflects the ability to recognize original and creative ideas. It is quite likely that ideation and evaluations work together for creative thinking.

Runco and Chand (1994) suggest that there is a family of evaluative skills, including those required for making accurate judgments — both intrapersonal and interpersonal — and those used in determining both what is wrong and what is right with an idea. Intrapersonal evaluations are apparent when children themselves come to realize that solutions or ideas they produce could be better. Brooke might end one of her short mystery stories with a particular denouement, but then re-read it and realize that it is too similar to what she read not long ago in a Nancy Drew book. As a result she may change her own story to insure its originality. But Brooke may not be as sensitive when judging the work of another student; such interpersonal evaluations require a shift of perspective and the use of different information. When judging one's own work, the individual can think back on various options and use that information to select what seems to be the most useful or original. But when judging the work of others, that same kind of information is unavailable. Hence, judgments must be made using different standards and comparisons.

Another kind of evaluation allows children to assess their work in an objective but appreciative way. Perhaps Brooke will re-read her mystery and conclude that it *is* original, as well as surprising and logical. This kind of appreciative thinking is ***valuative*** and is quite important for parents and teachers as they react to ideas given by their children and students. Extra energy and the ability to see things from a child's perspective may be necessary, but usually adults can find the underlying logic of children's ideas. (Also, it can be rewarding to make that effort and may even help adults recapture a fresh and uninhibited perspective for themselves.)

Creative potential is, of course, far from entirely cognitive; it also involves emotion and ***metacognition***, which is essentially a strategic use of one's abilities. For this reason Figure 1 contains motivation, in particular intrinsic motivation, as well as knowledge, again in particular, procedural knowledge. Procedural knowledge is know-how or strategic thinking. It is used quite often when solving problems and is necessary in decision-making about the best ways to approach a task at hand or how best to allocate time.

Intrinsic motivation also follows from evaluative thinking. Psychologists talk of cognitive ***appraisals*** preceding interest, meaning that individuals do not care about things they do not understand. Hence, students may learn to care about some topic or issue and be interested in pursuing it, but that interest is expected only after they have at least a general grasp of, and reaction to, the relevant information. Think of what kinds of work especially talented students will choose if allowed to define the specifics of an assignment for themselves. Most often they will choose something they know at least a little about and about which they want to know more; for many, after that there is no stopping them.

Turning now to implications of the componential model for parents and teachers of the gifted, we will see that they follow directly from the primary components contained in Figure 1. However, some follow more from research used to isolate the components (Runco & Chand, in press). Following are some practical implications that may be adapted, modified or extended for use in most any classroom situation or with students on an individual basis:

- **Use explicit instructions**. Clear directions about the task at hand may describe the best strategy to use with it and perhaps give some clue as to the criteria

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that will be used to judge its success. In the simplest cast such instructions state: "find ideas that no one else will," thus directing students specifically to original ideas.

Explicit instructions can be used to specifically increase fluency ("the more, the better") or flexibility of ideation ("give ideas from different categories"), as well as originality. In research situations they have been used with many different kinds of creativity tests, including tests of divergent thinking and insight, which suggests their wide applicability. When giving explicit instructions, it is good to indicate what kind of ideas are unwanted as well as what kind are wanted. For example, if tasks are open-ended or require divergent thinking, it is often helpful to contrast them with typical school examinations which generally focus on finding specific "correct" answers. When requesting fluency, it is easy for a teacher to point out that "unlike many of your examinations, on this task I would like as many ideas as you can give...the more the better." Something similar can be applied to original ideas in characterizing them as unconventional rather than correct. Also, stressing diversity of ideas will generate flexibility.

• **Target specific components.** Rather than simply asking students to "be creative on this task," educators and parents should target specific components and subcomponents. It may also be necessary to include tactics for recognizing an original or flexible idea. This was suggested above in the directions, "think of an idea no one else will," and in the idea of valuation.

• **Don't overlook flexibility.** For some reason flexibility seems to be the least frequently recognized index of creative thinking. This may be because it was once believed that flexibility was dependent on fluency, but now we know that diverse ideas can be found without the individual being particularly fluent. Additionally, flexibility has special importance, especially for creative problem solving, because it precludes two common difficulties: rigidity and functional fixity (the tendency to remain in a rut and to see a problem from only one perspective).

• **Use tasks and exercises for which there are no clearly defined solutions.** Curricula in which the teacher knows all the correct answers are easy to plan and easy to execute. And certainly, the resulting convergent thinking has its place in strengthening certain kinds of problem solving skills. But open-ended, divergent thinking kinds of tasks should also be used. These tend to be more fun and students will appreciate the latitude, the surprise and the creativity of unpredictable problem solving. For gifted students in a regular classroom situation, activities built around this kind of relaxed structure offer them the opportunity to really stretch themselves and, in some cases, can be "life savers" for them. It seems to me that educators, and particularly those who work with the most able students, should take a close look at their curricula and ask themselves just what percentage is truly open-ended and what are the implications of *those* numbers.

• **Begin with the fewest demands and constraints.** Later move to more realistic but more constrained tasks. Beginning questions should be very simple; "Name square things," and "List uses for a brick," for instance, are presented tasks that might be starting points in a number of content areas and at any age level. These can be fun to think about and answer and then can lead in any number of directions while gradually phasing in more demanding and realistic tasks. This allows for a kind of ***fading*** and an easy transition and should contribute to generalized learning across tasks and settings and ability levels.

• **Allow for fading from presented to discovery problems.** Once students are accustomed to open-ended tasks, move on to tasks which allow discovery. Unlike the presented tasks named above, tasks that allow for discovery might ask students to identify an object and then think of multiple uses, or to think of problems encountered in school and then think of possible solutions. This kind of exercise may also allow problem identification definition. Students often do not have much say in defining the tasks they face and so typically do not expect open-ended exercises. By starting with structured but open-ended tasks, students "learn the ropes" and then can easily move to less structured work. In addition to their being more realistic, discovered problems have the advantage of being more motivating. Again, this is clearly significant for educators. Rather than relying on contingencies as incentives, allowing students first to find and define problems for themselves in intrinsically interesting areas, then produce numerous, original and varied ideas on the way to evaluating and valuating those ideas can not help but enhance and insure real learning.

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It must be kept in mind that if students are allowed to identify and define their own tasks, as well as consider numerous possible solutions and options, and then are asked to find value in unexpected and original ideas, they will need large amounts of time for particular projects. Put simply, *time is necessary for creative work.* Even if working with preschoolers and a presented problem, it is likely that the most creative ideas will come only after some time has elapsed. Theories underlying ideation indicate that original ideas are usually found only after obvious and common ideas. Hence, children, like adults, will be the most original if given time to follow one idea to the next then on to the next, and so on. Surely, there is an optimum amount of time that should be given, and determining that will depend on cognitive and grade levels and attention spans.

I began with the idea that there are differences not only between the gifted and other populations, but within that particular population as well. When they reflect domain preferences and abilities, one gifted child may be quite obviously different from another. Other differences are not always readily apparent and call for closer or different kinds of examination. As suggested in my discussion here, some of these other important differences are indicated by the specific components of a new model for creative thinking. Using this model may be helpful in many areas affecting gifted children: in gaining a more in-depth understanding of the differences among the members of this group, in developing individual profiles of them and ultimately in using that increased understanding to provide what is necessary for these children to discover, define and solve personally meaningful problems.

Recommendations for Enhancing Creativity in the Classroom

Prepared by Mark A. Runco (1992) for The National Research Center on the Gifted and Talented

- Avoid relying on verbal materials; use a variety of materials; tap various domains (e.g., music, crafts, mathematics, language arts, physical education).
- Avoid relying on verbal rewards.
- Avoid over-emphasizing structure and curricula with predictable outcomes. Ask questions that allow students to follow their own (potentially divergent) logic and thinking, even if unpredictable. Plan to follow students' own interests part of each day.
- Avoid prejudging students who are nonconforming.
- Avoid suggesting (even implicitly) that your own way of doing something is the best or only way.
- Allow independent work, and *not* just where it is easy (e.g., while working on crafts or art projects).
- Discuss creativity with students; tell them why it is valuable.. Be explicit about how and when to be original, flexible and independent.
- Recognize the multifaceted nature of creativity.
- Work to appreciate what children find for themselves; give both helpful evaluations and supportive valuations.
- Inform parents of what you are doing, and why.

REFERENCES

Renzulli, J. (1978). What makes giftedness? Re-examining a definition. *Phi Delta Kappan, 60,* 180-184.

Runco, M. A., & Chand, I. (1994). Problem finding, evaluative thinking, and creativity. In M. A. Runco (Ed.), *Problem finding, problem solving, and creativity* (pp. 40-76). Norwood, NJ: Ablex.

Runco, M. A., & Chand, I. (in press). Cognition and creativity. *Educational Psychology Review.*

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Jerry Flack

In Search of Serendipity

Classroom Experts

Creative Ventures

The creation of classroom experts is one sure-fire means of helping young people find and/or develop their own areas of passion and creative work. Fostering a favorable environment for these young specialists enhances the unique creative contributions that each individual can make to the whole classroom culture. Invite students to accept the opportunity — as well as the challenge — of becoming the resident classroom expert in at least one topic or skill area.

It's a simple process which yields several benefits. Start by inviting students to become as knowledgeable and dexterous as they can be in at least one self-selected interest area or skill. Shirley, who has a flair for language, might choose as her focus onomatopoeia, learning all she can, then she might devise creative ways to share her new-found knowledge or skill with her classmates. Others might consider becoming the classroom:

Legal Rights Expert
Poet Laureate
State Historian
Space Scientist
Resident Artist
Hypercard Helper
Edison Scholar
Olympics Master

When classroom curriculum involves study of broad topics such as inventions, each student can choose one particular invention (e.g., television) about which to explore, investigate and develop expertise. Matthew becomes the internal combustion engine expert, and Lauren plunges into learning all she can about the evolution of surgical instruments.

The benefits of this kind of program are many. First, the practice allows students the opportunity and challenge to be continuously engaged in learning new information about topics of choice. Secondly, the use of classroom experts helps to dispel the notion that the teacher alone is always the source of knowledge and wisdom.

Shortly after beginning his term as president, John F. Kennedy invited all living American Noble Prize winners to a special White House dinner. He greeted them with these words:

This is perhaps the most extraordinary collection of talent, of human knowledge that has ever been gathered at the White House....with the possible exception of those nights when Thomas Jefferson dined alone.

In his time, Jefferson surely was a "Renaissance Man." He developed expertise in such fields as agriculture, political science, history and architecture and was an inventor, author and statesman. But, today's young people live in a very different era; theirs is the "Information Age," with "knowledge explosions" going off constantly. It simply isn't possible to be an expert in many fields. Becoming classroom experts gives students a sense of the kinds of specialization they may be likely to encounter in their futures.

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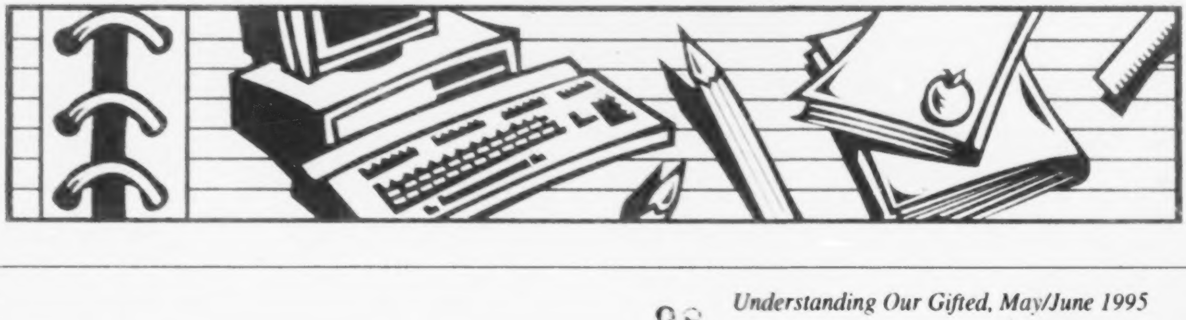

Advocacy

As part of our on-going commitment to advocacy efforts for gifted students, we support the following communique sent jointly by The Council for Exceptional Children and the National Association for Gifted Children to all members of the United States Congress.

May, 1995
An open letter to members of Congress:

In November of 1993, the Department of Education released a widely-heralded report, *National Excellence: A Case for Developing America's Talent,* in which it was stated that a "quiet crisis" exists in the nation's schools. We are not adequately educating our most capable students. This neglect will make it impossible for America to compete in a global economy that demands outstanding education and skills.

Unfortunately, Congress's action in 1995 has been to recommend rescission of 50% of the funding for the only federal program specifically directed toward the education of gifted and talented children, the Jacob K. Javits Gifted and Talented Students Education Act of 1994. This legislation authorizes a National Research Center on the Gifted and Talented (NRC/GT) and a limited number of demonstration projects designed to illustrate innovative and promising practices. It also designated a national office, with a staff of two, to play a leadership role in collecting from and disseminating information to State Departments of Education and local education agencies. How much money is currently appropriated? A total of $9.51 million in FY 1995, half of which is targeted for rescission.

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Classroom Experts

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A third benefit of having classroom experts is in the opportunity to help students learn to "share the wealth." Instead of one classroom genius dominating the group, every student would have the opportunity to be "the best" or an expert on some topic (e.g., dinosaurs) or at some skill (e.g., video editing).

When required work is finished, students can use class time productively through on-going investigations of their areas of expertise, sharpening their skills, extending their knowledge bases or working in other ways to be the best possible experts on rap music, folk art, Spanish culture, space travel, mystery literature or Internet access. Teachers can support and encourage student efforts by channeling new resources to student experts, matching them with mentors and alerting them to upcoming readings, concerts, conferences and events that relate to their specialization.

To contribute something worthwhile to the class, a teaching certificate or a Ph.D. isn't required. The knowledge pursued and shared by each budding expert facilitates joyous, creative and relevant learning experiences for all.

Jerry Flack is a President's Teaching Scholar and Professor of Gifted Education at University of Colorado, Colorado Springs, and author of several books, including ***Inventing, Inventions, and Inventors*** and ***Lives of Promise.***

The federal government has a national interest in research in gifted education. Gifted children are geographically dispersed and evenly distributed throughout all fifty states and U.S. territories. Because of the limited number of gifted students in any locality, gifted education is not a research priority at the local or state levels. It is crucial for the federal government to support national research and demonstration projects that provide information to states and school districts. The NRC/GT has studied identification of underserved populations; classroom practices; motivation and other psychological aspects of giftedness; and many other related topics which are beyond the scope and capacity of local or state research initiatives. The research center has hosted two research conferences and produced more than 340 publications, including monographs, newsletters, pamphlets, and technical reports. The NRC/GT newsletter alone has a circulation of more than 4000. The research center has worked in conjunction with 337 collaborative school districts representing all fifty states and two territories.

Until recently giftedness was defined simplistically, as high IQ. Due in part to the National Research Center and Javits demonstration projects, we now are able to develop gifts and talents that were not even *recognized* in the recent past. Continued funding for these types of activities will allow us to identify and serve increasing numbers of students with a wider variety of outstanding abilities. Continued research efforts will serve us all in years to come.

The research and demonstration projects funded by the Javits gifted program target students from populations whose members are more likely to experience school failure than achieve excellence and make noteworthy contributions to society. These projects are identifying and developing the underutilized potentials of children from every background, socioeconomic level, culture, and region of our nation. Currently funded projects are developing practices related to identification and education of minority gifted students, creating challenging curriculum for gifted children, meeting the needs of young gifted children, field-testing new concepts of intelligence and talent development, and providing innovative services to gifted students with disabilities. From American Indian children in the Southwest to inner city children from New York, Javits-funded projects and the practices developed by them are the last best hope for the untapped talent of America's children and youth. In numerous cases, model projects such as those funded by the Javits gifted and talented act have led to practices which have been adapted for educating all children.

Currently, the United States makes a minuscule investment in children who represent the potential of our nation to make discoveries in medicine and science, contribute to culture through the arts, and to resolve conflicts and economic crises around the world. When gifted children lose their way educationally, the country loses the benefit of their leadership and productivity. The National Association for Gifted Children (NAGC) and The Council for Exceptional Children (CEC) support federal research and demonstration projects in gifted education.

It is a shame only to request funding at the current FY 1995 level when the nation should be investing much more heavily in the future, but that is all we request at this time of fiscal constraint. Since the rewards are for demonstration and research, even this small sum can have national impact. CEC and NAGC urge Congress to fund the Jacob K. Javits Gifted and Talented Students Education Act at $9.51 million and to join us in making this statement to the world:

America recognizes the value of challenging all children to reach their full potential and we will nurture and celebrate the diverse expressions of gifts and talents in our children and youth.

Sincerely,

Nancy D. Safer
Interim Executive Director
The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091

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Executive Director
National Association for Gifted Children
1155 15th Street, NW, Suite 1002
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Susan Winebrenner

Above and Beyond

Creativity, a Delicate Flower

Several years ago I read an article about a father who learned the importance of resisting his natural impulse to correct his child's erroneous thinking. He and his 3-year-old son were in the car, waiting for a traffic light to change, when a North American Van Lines truck rumbled across their line of vision. "Consider the possibilities," the child said. Immediately, the father was tempted to help the little boy understand the reality of what he'd seen, which appeared to have no relationship to the phrase he had uttered. Instead, Dad thought better of his impulse, said nothing and challenged himself to figure out what the child meant.

Three days later, when the incident had all but disappeared from his memory, the father pulled out his MasterCard to make a purchase. Now if you can visualize the logos of both MasterCard and North American Van Lines, you will realize that both use two overlapping circles. At that time, MasterCard's slogan was "Consider the possibilities;" the 3 year old had made that creative connection for himself.

Not long ago at Disney World in Florida, we were watching underwater life move about in a huge aquarium. It was afternoon feeding time, and the divers were feeding the fish by hand. An excited little girl who looked to be about 4 years old exclaimed, "Look, Mommy, the fireman is feeding the fish!" This mom knew just what to do to keep from stamping on the creativity flowering in her daughter's mind. Instead of explaining the mistake in confusing a diver for a fireman, she asked, "How do you know that's a fireman?" The child promptly responded, "Because that's the way they look when they go into a building that's on fire. You can see his face mask and breathing tank, and they can help him not have to breathe in the fire!"

Creativity seems to blossom at will in young children, but not so often in older kids. Where has it gone? When we, as helpful adults, rush in to correct what appears to be mistaken information or ideas, what we're really doing is pruning back a child's creative process. In doing so, we miss an opportunity to learn fascinating things about how children think and make connections. When, instead, we learn how to ask for explanations of children's thinking, we're nourishing their inherent creativity and allowing it to grow strong and sturdy. As parents and teachers, we would do well to train ourselves to do more reflective listening and gentle questioning if we truly value the life of that early flowering, our children's ability to think creatively, and the longevity of its unique bloom.

Susan Winebrenner, from Illinois, presents workshops on a variety of topics, but her first love is teaching gifted children. She is the author of ***Teaching Gifted Kids in the Regular Classroom.***

UNDERSTANDING OUR GIFTED

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Mutual Education: Students & Teachers Learning from Each Other

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LeoNora Cohen

Paradoxes of Creativity
LeoNora Cohen
with Tiffany King, 15
On Being a Creative Writer

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Dedicated to helping gifted children reach their full potential

July/August, 1995

Volume 7, Issue 6

Paradoxes of Creativity

LeoNora M. Cohen

Teachers and parents are often baffled by creativity in gifted young people, and one reason for that may be the paradoxes—strange contradictions — that coexist in creative people and creative processes (Rothenberg, 1979).

Many ask how creativity can occur in the very young and brilliant scholars, artists or scientists. The answer lies in the universal/unique (Universal/unique is a continuum between the novice learner and the expert, described by Feldman, 1980.) paradox: early childhood is the period in life of greatest creativity (Piaget, 1981). Yet so few of the highly creative young go on to attain the status of a DaVinci or a Darwin. We wonder, what does this seeming polarity have to do with teaching or parenting?

Preschoolers and Poets: Universal and Unique

It seems paradoxical to think that small children and acclaimed geniuses share common characteristics (Cohen & Gelbrich, in press; Piaget, 1981). Just as celebrated creators are wholly involved in their specific fields of compelling interest, young gifted children also

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FOCUS ON:

MUTUAL EDUCATION

GUEST EDITOR
LeoNora M. Cohen

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Reflections

Deb Weiner

Most gifted students have an amazing capacity for identifying their own talents, interests and challenges. Early on they develop individual perspectives and can have strong views about themselves and the world around them. They know what is working and what isn't, and they can tell you. Though possessing these extra dimensions, bright youngsters still may need support to put their ideas into action. And providing this support may require sustained effort on our parts to be there, to listen and to build trust.

I have learned that our own interpretations of these children and their situations may or may not be right, but we won't know for sure unless we check in with them; if we truly are concerned about meeting kids' needs, we have to talk to them. You can't "do it to them," no matter how much you might care; gifted kids need to be engaged in the situation.

Following these beliefs, I asked a class of high school junior honors students to collaborate with me on this article, asking them what they thought teachers and parents should know about meeting the needs of gifted students. They discussed a

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PROLOGUE

Mutual education — another catch-phrase in the ever-expanding lexicon of "educationese" . . .

Wrong!

The concept of mutual education — adults and kids learning from each other — is what education is all about. It's not a new concept. Teachers and students and parents have always learned with and from each other, but we seldom give recognition to this process, nor do we ask for kids' opinions about the process of learning.

Guest editor Nora Cohen illustrates mutual education in action as she and young Tiffany King interact not only as teacher and student but as friends and intellectual peers. The intriguing subject of creativity overflows from the last issue of *Understanding Our Gifted* into the pages of this one, as Nora relates paradoxes of creativity to the life and work of Tiffany and other gifted youngsters. Tiffany's own essay appears as our Highlight, while in the Tactics column we get a look at their tandem process from the inside out. Deb Weiner carries on the theme of mutual education as she presents her own professional opinions as well as candid reflections from the gifted high school students with and from whom she learns.

An essential component of mutual education is listening — to kids, to teachers and to parents. To lend support to and help further this enterprise, *Understanding Our Gifted* continues to offer its pages as a forum for family members and professionals who live and work with and cherish all the gifted children who grace our lives.

D.K.

Highlight

Being A Writer

Tiffany King

There were three things that were always mentioned on my report card during elementary school. The first one was, "Tiffany needs to work on addition and subtraction facts at home." That one always made me feel sad. Would I ever learn how to do math? I kept a steady B in that subject, and to me, that was shameful, terribly wrong.

The second thing that I didn't like was, "Tiffany needs to learn how to work in groups with others." In my opinion, the "others" were always in the way. I knew how to do the work, and I didn't want anyone peering over my shoulder, telling me what to do.

The last thing I continually noticed was the reference to my writing skills. As my 2nd grade teacher put it, "Tiffany has the skills to be a very sophisticated reader and writer, and with continued effort, these skills can be enhanced." Okay, so I wasn't so hot in math, and I couldn't work in groups. But I could write.

Writing is one of my favorite pastimes. I have an impulsive habit of observation, picking up bits and pieces of information here and there. Because of this, I always have three or four stories hanging in the wind at the same time. I've been writing a book (or novel, as everyone likes to call it) since I was 13. This novel was actually finished that year, all 200-plus pages of it. I've been editing and rewriting it for almost two years now. I like to compare it to buying a previously owned house and doing remodeling and landscaping. There are so many things I want to change, and a lot include throwing old things out and putting new things in. In order to create, you must first be able to destroy. Writing is power, giving people control to plan the future and work out their dreams.

When I grow up, I plan to be an author. I am constantly working on what my parents jokingly call "the great American novel," which could be any few stories at a time. When I write, I simply open up my mind and let the juices flow. Often when I read my work after writing it, I don't remember a thing. I don't recall thinking of it or phrasing it into the words I chose, or even recording it on paper. This has left me completely baffled. Who is writing my stories, then, if it isn't me? Perhaps it is my *muse*. A *muse* is a goddess in Greek mythology that is said to be responsible over the creative influences, like a guiding inspiration. Do I believe in that stuff? Maybe. Hey, I don't remember writing it, do I?

(Continued on page 9)

LeoNora Cohen and Tiffany King

Tactics

Working Together, Learning Together

For both Tiffany and LeoNora, the rewards of working together on writing for this issue far exceeded their expectations. Their partnership was so interesting and fruitful that a third work was produced, a sort of metacognitive examination of themselves, their process and its rewards. Below are excerpts from their journals, kept throughout the months of their working partnership.

Working Together

TK: *Nora called me up about writing an essay on creativity. She wanted it done by April 1, and I thought I could do that. I was excited and confused. Excited because of the unique opportunity that was knocking, and confused because Nora had been slightly vague on what this essay on creativity was to be about. I set at work devising a simple essay, which I wasn't too happy about, but I knew I could and would change it. Being tied up with swimming twice a day and school in between (not to mention swim meets during the weekend), I felt rather pressed for time and knew that April would catch me soon.*

(Note: After their initial phone conversations, Tiffany and LeoNora met six times. Following the first session, LeoNora began a project journal.)

LC: *I was struck by how many examples [Tiffany] gave that illustrated points I was trying to make. . . I was intrigued with her discussion of teacher comments on her report cards and thought it would be an opening that would draw in teachers and parents. . . The paper needed tightening and restructuring, but had some very good ideas, whimsy, charm, puzzles, openness —in fact, Tiffany had elucidated many of the characteristics that mark creative people. I found myself thinking about [my] paper that night, how I wanted to tie it more to hers. It really struck me how much I was learning from her—the direct, fresh views about herself and her processes—that illustrated so keenly what I was trying to get at. Only mine was written in a far thicker, less reader-friendly way. I began to think of this [working together] as a research project. I'd write about my processing, reactions, etc. as we worked and met and ask Tiffany to do the same.*

TK: *Our meetings were diligent yet fun. I loved discussing different things in an atmosphere where Nora and I could reflect and relate to my ideas. Many times our conversations would keep me thinking for a long time. I would open up, despite my terminal exhaustion, and my thoughts would begin to explore.*

LC: *I was excited about meeting with Tiffany tonight. I looked forward to talking about our project as action research. I also wanted to put myself in the same role as Tiffany. If I were to edit her paper, surely she should give me feedback on mine. [She is] wonderfully open to suggestion and willing [to make revisions] and was very kind in her comments on my paper, but thought some of my vocabulary was too big for young people. We discussed the idea of paradoxes. We also talked about external and internal and she puzzled about where one began and the other ended. Really good points, as things may start one place (e.g.: external) and end up internal. Tiffany questioned whether something is really unknown when a child or adult considers it. She is a thinker and puzzler. She's very open, but needs examples to be concrete. Probably would really help my writing to work on this. It will be helpful to have her editing, as she won't let me get away with anything!*

TK: *Nora's probably going to be really disappointed in me. I tried to keep on task and edit my essay when I needed to, but that became increasingly difficult due to my lack of time.*

LC: *Between our second meeting and today, I used Tiffany's first draft . . . to code paragraphs relative to characteristics of creative people and to find paradoxes. I "mapped" these on the first section of my Paradoxes paper, using Tiffany's words to illustrate characteristics. I also delved into the literature on personality characteristics of creatives and pulled out several key references, which I put in the paper single spaced as draft to consider.*

(From LeoNora's preparation and research notes: The following list of creative characteristics sound much like the personality traits

(Continued on page 8)

ParentSpace

On the Team

As a player of major roles in the lives of many people, Julie Kindel, master teacher of the gifted both in the classroom and at home, is an inspiration to all who come into contact with her. In considering Mutual Education, I could think of no one better to feature in ParentSpace than Julie, who truly personifies with humor and common sense what is meant by that term. LG

Education — A Team Effort

Julie Hasbrouck Kindel

I hear a CRASH followed by an avalanche of window glass. As I run toward the sound's source, I am met by two of my students, my sons Jon, 11, and Scott, 9. It's baseball season at our house and the boys report sheepishly that a back window has given its life for "the cause." Together we survey the damage and shed some tears. They cry, never dreaming a small rubber ball could generate such a large hole. I cry as I think about the inevitable hole in our family's budget. After everyone has calmed down, we try to decide what to do.

The boys soon realize that they don't have the financial resources to cover the damage and plead for me to buy the new window. After they grovel sufficiently, I offer to pay if they promise to find a way to keep future baseballs from making similar "flights of death." They huddle, ideas fly and soon there is a plan: the ultimate solution will be to create and install hinged plexiglass covers over vulnerable windows. I marvel at their ingenuity as they show me the written plan, and they are relieved that I'm not upset. We all feel a sense of relief and look forward to our trip to the hardware store to buy a new window and the makings for the window shields.

To me, this vignette is an example of mutual education at its best. In teaching my own children, Jon, Scott and before them their sister Mary, 14, I also have found that I experience a sense of mutuality. As with all relationships, we have our up days and our down days, but on the whole, I feel that I have learned about as much from my own children as they claim to have learned from me.

As a parent, I'd never before known the joy of running in the fog or slapping mud with a stick, and I've even learned to somewhat like baseball. As a teacher, I've learned how to teach multiplication tables without tears (mine as well as students') and, most importantly, to see things from a child's point of view. The subjects I teach to other youngsters outside the home, math and science, can be hostile territory for young minds. Through my children's guidance, I've come to see the beauty of kid-centered teaching; I've learned that fingers are perfectly functional manipulatives and that questioning our world can lead to powerful inquiry. Through my kids' questions, among other things, I've learned how plastics are made, how electricity flows through simple circuits and that there are many different solutions for seemingly simple problems such as, "Which came first, the chicken or the egg?"

I hope that my children are becoming educated people who have learned from me to love and to care about themselves and others. Have I met my goal? I don't know and won't for quite some time. However, I do occasionally catch glimpses of what our experiment in mutual education has meant to them. Through our walks in our local open space, the boys have grown to appreciate plants, animals and the power of Mother Nature. Through lessons held on our living room couch, they have begun to re-discover the joys of learning; surfing the Grolier CD Encyclopedia has become a favorite spare-time activity. We've also had many talks about what they think is important in a parent-teacher-student relationship, with their own common thread being respect for themselves and others.

Well, this is enough looking at what we've done in our formal schooltime. I think I'll go out now to pitch a few innings. After all, I may be pitching to another Hank Aaron or Babe Ruth. And if not, I know I'll have fun. Perhaps I'll also strengthen my pitching arm, because I think I've got at least a couple more seasons to go before I retire.

Laura Goodman is the mother of a gifted child, a fiction writer and editor, not necessarily in that order.

Sandra Berger

Surfing the Net

For Electronic Texts

Summer is an ideal time to visit the library, or in this case, the Virtual Library. Increasingly, the Internet is becoming a repository for full textbooks. To read *Alice in Wonderland*, you no longer have to go to the library to check out a copy. You can download it to your computer and read it on screen or print it. These full length books and other large documents are available as electronic texts or e-texts. High school students find them particularly useful in meeting term paper deadlines. There are several great sources, including Project Gutenberg, the Online Book Initiative, Alex, and the Children's Literature Web Guide. Wiretap, a commercial source, also has a wide selection. The World Wide Web (WWW) has lots of information; C. S. Lewis, William Shakespeare, and many other authors have their own Homepages on the Web!

Although I check addresses just before UOG publication, the Internet is dynamic. If you can't reach a particular resource, the address may have changed, or the site may be temporarily out of service.

If you subscribe to one of the numerous freenets, look for a menu choice such as Education. You may find an e-text connection somewhere on that menu. If you know how to use one of the gopher or WWW search tools, look for "electronic books" or "children's literature."

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Filename:
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(Continued on next page)

Gloria Frender

Learning To Learn

Making Lists

A large part of becoming an independent and responsible student is planning the best use of time from day to day. Daily "To Do" lists save hours of work, prevent frustration and improve the likelihood of actually getting things done. Research states that people are 10 times more likely to do something if they write it down. Parents and teachers, assuming guiding roles as consultants, can discuss the importance of making lists and checklists and share their personal experiences, but students need to do this activity for themselves. Students learn to plan for tomorrow by setting their *own* priorities when creating their own lists.

To Do Lists

1. Make two columns on a 3"x5" card, labeling one "Need To Do" and the other "Want To Do."

2. Focus only on tomorrow and write three tasks/activities to be accomplished in each column. Gifted students can be very creative; be sure they touch base with reality. For example, *Go to school, come home and eat* are trivial "Need To Do" activities and wouldn't count. *Begin research in library, call Mrs. Moore and do dinner dishes* would be legitimate list items. *Go to Disney land and stay up all night* would be unrealistic "Want to Do" activities for a school day.

3. Chronologically number the items under each category using morning, afternoon and evening as time designations.

4. Combine tasks in both columns into one chronological list. Be realistic and try to use a reward of one item from the "Want" list for every one from the "Need" list.

5. Determine and note an appropriate amount of time for successful completion of each activity.

6. Add any items not completed today to tomorrow's list.

7. Set aside five minutes each evening to make a list for the next day. Make this a habit by repeating it for 14 days in a row.

8. Work out a reward system for successfully completing seven days, then 14.

***Before You Leave School** Checklists*

It's important for students to be organized and prepared for home study time when leaving the school building. Placing a simple checklist (using the six items below) on the inside of a locker door or the inside cover of a three ring binder can be very helpful as a reminder to students to gather all needed materials and complete tasks *before* leaving. This simple strategy greatly lessens any panic or anxiety that can occur at the beginning of study time at home. *Students should check to make sure that:*

- Assignment sheet is complete for each class.
- All assignments and due dates are understood.
- All necessary books, notebooks, materials and supplies have been gathered.
- They stop by the library/media center if necessary.
- They talk to or see any necessary persons.
- They review "To Do" list.

Most adults have discovered the process of prioritizing time the long, hard way, through experience. Gifted students quickly learn and retain these strategies and accompanying thinking skills, and most will experience immediate improvement in successfully managing their own time and completing tasks. And, what's more, they'll take these skills and strategies with them into their futures.

Gloria Frender, an educational consultant from Colorado, has taught at elementary, middle, secondary and post secondary levels. She is the author of two books: ***Learning to Learn: Strengthening Study Skills and Brain Power*** and ***Teaching for Learning Success: Practical Strategies & Materials for Everyday Use.***

Surfing

Continued from page 6

drseuss@gorn.iuma.com
Happy surfing....and reading!

ERRATA

In March/April*UOG*, p.6, "Gifted Education Listservs," should read: subscribe TAGFAM(instead of TAGFAMLY) yourfirstname yourlastname.

The ideas expressed in this article are the author's, and do not necessarily represent the views of the CEC or ERIC Clearinghouse on Disabilities and Gifted Education.

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Working Together

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uncovered by creativity researchers, particularly during the 1950s through the '70s [MacKinnon, 1978; Cattrell, 1971; Barron, 1963; Walberg et al, 1981]:

Imaginative
Observant
Open to self
Sensitive
Having a strong sense of self
Daring to be different
Prefers to run free
Control/power
Purpose/effort
Humor
Inspiration

Tiffany's self descriptions at age 15 fit with many of the characteristics of these researchers, even though most studies were done on adults, most often males, and often in different fields. The personality traits of the gifted young creator do appear to match those of the eminent [Dellas and Gaier, 1975], and gender stereotypes are far less evident [MacKinnon,1961; Barron,1963; Hammer,1964; and Helson,1967] with mixing of masculine and feminine traits.)

LC: *I showed [Tiffany] how I coded her paper for characteristics of creative people. I also showed her the research base I pulled together for consideration of her paper [and] described how I had taken the list of paradoxes (far too many for any reasonable paper) and collapsed them into five key ones. While Tiffany read my paper, I reread what she'd written . . . I shared my suggested revisions [order of paragraphs] with her, and she was very open to the ideas and seemed to welcome the [help with] structure. We shared the "Tiffany notes" I had completed after our last meeting. I pointed out what I had learned from her (use examples, keep words simple, the freshness of her points of view about creating and herself). I explained that I'd hoped she would have also done this, but she now says she has lots of ideas as a result of what I wrote, and would sit down tonight and do it. . . I feel like I'm asking her to stretch perhaps too far with this project, as she is already stressed, tired and extremely busy. Wish we had more time.*

TK: *Nora's paper keeps getting more interesting. We advised one another on beginnings, endings, context and choice of words. I especially liked Botany Bill in her paper. I love examples and metaphors, and I encouraged her not to throw Botany Bill in the trash. I was relieved when we extended the deadline of my essay. I worked on it a little more, then played with the order of paragraphs in the body. It keeps getting neater and more polished.*

LC: *Our fourth session felt slow and a bit hopeless. Too much to do on both our parts, no time, and a very rough few weeks. I found myself feeling disappointed that Tiffany had not made all the changes or journalized much, even a bit angry, and then I realized that she leaves the house to swim at 5:30 each morning and swims again for two hours after school. She must be exhausted! I don't have a right to insist that she play my "game" [action research]. I promised I would finish typing her paper if she didn't, to relieve the pressure a bit.*

TK: *Our last meeting was one of the few I can remember with detail, probably because morning swimming ended and I wasn't comatose. I typed some of my draft and did some editing. It was extremely exciting to finally be finishing the essay. Sort of a getting-out-of-school-for-the-summer feeling.*

LC: *I thought this was to be our last meeting. I gave Tiffany a copy of her laser-printed paper and a close-to-final version of "Paradoxes." She read the Paradoxes paper and made an on-target suggestion. I had been unhappy with what I felt was a deadly boring ending (simply a list of the paradoxes I had described earlier) with a single sentence discussing the danger of not recognizing the dualities or paradoxes. She told me that I needed to expand on that notion. Suddenly I realized that she had caught the kernel, the "why it's important." I was relieved to take out my old summary and have her input on fixing it.*

We reviewed the ideas I'd written down about our experiences together and decided to write another article, together, alternating voices. We numbered paragraphs in our journals and saw that they slipped in with each other's easily! I'll do the moving around on the computer. One more meeting to finalize it all!

Learning Together

TK: *Nora and I learned a great deal from each other. Neither of us seemed dominant in this project, yet we were both continually offering advice and comparing our ideas.*

LC: *Working together is synergistic. We learn more in reflect-*

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ing together than alone. To do so required building trust and sharing safely. I was careful to be constructive to Tiffany and she was wonderfully kind to me.

TK: *Without really expecting it, I think I learned a lot about myself—how I work and think and understand things. I also came about the notion that I was doing something, not just being told what to do. I had input in this project, not like the stuff we do in school.*

LC: *Time stress became particularly clear. It's hard to push when either one or both of you is maxed to the limit. I felt guilty (knowing how sensitive Tiffany is) pushing her, particularly my need to explore this action research project jointly. Tiffany certainly did what she could.*

TK: *Nora's paper taught me a lot. She brought out some of the ideas I had that I thought were somewhat imaginary, only presenting them in an official and understandable way. I tend to think that Nora influenced me in a logical and clear way, and I influenced her in an open and loose way. We think a lot alike, though we relate to it in different ways.*

LC: *Tiffany encouraged me to be less stuffy, to use more examples, to simplify language, to honor the central purpose of my essay. I am astounded at her openness to herself, her freshness of vision, her honesty and her creativity. This was a remarkable adventure in learning and creating shared by a 15 year old and a 50-something year old!*

References

Barron, F. (1963). *Creativity and psychological health: Origins of personality and creative freedom.* Princeton, NJ: Van Nostrand.

Cattell, R. B. (1971). *Abilities: Their structure, growth, and action.* Boston: Houghton-Mifflin.

Dellas, M. and Gaier, E. L. (1975). Identification of creativity: The individual. In W. B. Barbe and J. S. Renzulli (Eds.). *Psychology and education of the gifted*, (pp. 179-207). New York: Irvington.

Hammer, E. F. (1964). Creative and feminine ingredients in young male artists. *Perceptual and Motor Skills, 19,* 414.

Helson, R. (1967). Sex differences in creative style. *Journal of Personality, 35,* 214-233.

MacKinnon, D. W. (1961). The study of creativity and creativity in architects. In *Conference on the creative person.* Berkeley: University of California, Institute of Personality Assessment and Research.

MacKinnon, D. W. (1978). *In search of human effectiveness: Identifying and developing creativity.* Buffalo: Creative Education Foundation.

Walberg, H. J., Tsai, S. L., Weinstein, T., Gabriel, C. L., Rasher, S.P., Rosecrans, T., Rovai, E., Ide, J., Trujillo, M., & Vukosavich, P. (1981). Childhood traits and environmental conditions of highly eminent adults. *Gifted Child Quarterly, 25,* 103-107.

Being A Writer

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I've always been persistent and determined. I remember one incident in particular. I was about 3 or 4 years old, and I lived on a pretty street called Centinella Drive which had a metal street sign on the corner. On the top of the metal pole, there was a green marker that blared the name of our street in bold white letters. The neighborhood kids would always be climbing that thing. They'd shinny up to the top and plop right down on it, watching people and cars and dogs go by. I wanted to be just like them — I wanted to be the one that sat on top of that sign! I woke up one morning, determined to do it all on my own. I'd jump and wrap my hands around the pole, then try and work my way up with my feet. Time must have passed quickly, because my dad walked down the street and told me that dinner was ready. I didn't care about eating. I just wanted to climb that sign. I refused to go home. The next thing I knew, my dad picked me up and dragged me, kicking and screaming back home. But right after dinner, I went back to that sign post. I wasn't going to give up. Yes, I climbed that pole!

When I was younger, back in elementary school, I was afraid to be openly creative. I would think, "If I say this, people will think I'm crazy. Whenever I say anything, people think I'm weird." At that time, creativity didn't pass the "cool" test. You had to be pretty, opinionated and wear the right brand of clothes. You had to wear your hair right and you had to play four square or

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tether ball at recess.

I did none of these things. I wore the clothes I liked, the ones I thought looked good on me. I was too scared of the popular kids to be opinionated in their way. My bangs were too long, and I didn't like it when the bigger kids swore at me in four square or when the tether ball hit me in the nose. At recess, my two best friends were there for me. I'd make up imaginary games instead of physical ones. There were two green plastic rectangular manhole covers at the far end of the playground, not enough for all three of us to claim as graves, but we managed with one imaginary grave. As ghosts, sometimes we'd get chased by something imaginary, and we'd run across the playground yelling, "Elefante! Elefante!" and jump on our graves three times, turn around in a circle and crouch down. Then we were safe. At home, my next-door neighbor and I were tarantulas on my hammock, which made a perfect web. At her house, we were pirate girls lost at sea on a rugged wooden ship (her bunk bed) and we were searching for our names. We'd stop at islands (nightstands, the bureau) and search in trunks of glorious treasure (her silk-covered Japanese jewelry boxes). My imagination has always kept me busy. It runs away every now and then, but somehow I don't feel like tacking up "MISSING" posters on sign posts. My mind usually prefers to run free, no chains attached. When it's unleashed, it's more open to inspiration.

Inspiration, one of the most respected forms of creativity, seems to hit me like a flash of lightning. Previously, a lot of my inspiration has been extracted out of names. Somehow, a simple first name—or a complex one—jumped into my brain and refused to leave I asked myself, "What kind of image would this person have? What is the most important thing in his life? What kind of problems does he have? What does he want out of life? Does he tend to be optimistic or pessimistic?" And so on. Soon there was a person inside my brain and my mind was a whirl with pleasurable planning. He had qualities not only invented, but borrowed from other people as well. Yes, he was just itching to get out and onto paper. Once my mind had given birth to this person, he was right there in the flesh and ready for me to decide where he'd go.

Now, a sudden feeling, a certain aroma, an unknown face in a crowd—all of these inspire me. It's walking into a dreamlike hallway filled with doors and I can choose which door I want to take. By going in that door, I receive what it has to give me, which is inspiration.

Lately I have been inspired by feelings in general. About four years ago, when I was 11, I started to fall into a strange realm of feeling. I still get this feeling if I concentrate hard enough, but it's frightening. At the same time, it's breathtaking, which is why I let myself go every now and then. This feeling starts by pondering. I think about myself—not like an ego trip, but just think about myself here and now. Somehow I feel myself going down to the root of me, then kind of spinning out. And that's it—for about a minute, I am not myself anymore. I may possibly be someone else. I may have possibly placed my mind outside of my body. I may possibly be crazy.

Not to be confusing, but that feeling is one form of my creativity. Maybe others have this feeling and it's nothing new to them, but it's not something that I talk about often. In fact, I don't believe that I ever have spoken about it.

Creativity is different for everyone. I refuse to believe that certain people aren't creative. Creativity lies in all individuals, whether it be known to them or not. Everyone is born creative. How they use that creativity in their lifetime is up to them. There are certain factors that can limit creativity and stunt its growth. If you bounce a ball, it will bounce until it stops, hits an obstacle, runs out of air, any of these. You can pick it up, bounce it again, put more air in it, patch the holes. Fixing a damaged ball can take time, as can repairing mistreated creativity. That is why creativity in children should be handled with care by teachers and parents. It needs to bounce high throughout life, not fall flat due to punctures and air leaks. It needs to be exercised and strengthened, just as athletes train for their sports. Kids need to learn early to express their creativity so they can remain creative as adults. Unlike most things, the more creativity you use, the more you have left.

Tiffany King, 15 years old, is entering her junior year at South Eugene High School, Oregon. An avid swimmer and writer, she is on the staff of her school newspaper.

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find certain interests utterly consuming. Both are motivated by the same disequilibrium. Found in preschoolers and poets, tots and technologists is the same uncensored openness to life experiences; theirs is a kind of thinking, like that of biologist Charles Darwin's, that "is 'child-like' — questioning, searching, following unexpected leads, inventing, discovering. Little children's thinking is creative, especially when it is permitted to function freely and is respected as all such thought ought to be"(Gruber, 1973, p. 103).

For example, at age 3 1/2 Ben, a highly gifted boy, was passionately interested in volcanoes and wanted to learn everything about them. His mother patiently searched the library for every fact she could find, hoping to answer her son's numerous questions and satisfy his boundless curiosity. Ben's fantasy play focused on volcanoes. He went "volcano fishing," sitting on his bed with a string and pole to cast off into pretend Kilaueas and Etnas. His mashed potatoes and gravy and cottage cheese became Vesuvius and Mount Saint Helens. In his sand pile Mauna Loa erupted with the help of baking soda and vinegar. His expertise was astounding, and at 3 1/2 he certainly knew more about volcanoes than I did. He told me, "I want to tell you everything I know and don't know about volcanoes," and proceeded to describe the three types of volcanoes, giving several examples of each, including how deep in the earth magma, different from lava, comes up between plate cracks (Cohen, 1989b).

Although the process of creating, the emotional state, the intense attention, the passionate interest and the focus on a problem may be similar in gifted children and mature creators, clearly there are differences. In children, the structural and knowledge base from which to work and play is incomplete (Ben's understanding of tectonic plates was likely related to huge dinner dishes); novel constructions resulting from interest play are new to them and perhaps unusual compared to peers, but not new to the world (For a small child, Ben's information level was extraordinary but would not have been for a high school science student.); the involvement in an interest area is largely non-conscious (Ben could tell you he loved volcanoes "cause they explode!"); and in the small child, the nature of the reflectivity is based heavily on empirical events ("What I know and don't know about volcanoes"). While adult creators have a vision of the possible to help set their purposes, as well as an awareness of the present limits of the field that lead to the intent to push back its edges (a mature form of creativity—see Cohen, 1989a), young children have a quest impelled by disequilibria deep within. In Ben's case, this related to fear of natural disasters — earthquakes and mud slides — he had seen on TV news, what he called "the dangers" (Cohen, 1989b; in press).

Creativity is universal, characteristic of all young children and new learners when they construct something for themselves, such as side-stepping to get up a ski slope or finding that 3 plus 5 is the same as 4 plus 4. Creativity is also unique, when the creator produces something new or rare that is of value (Cohen, 1989a; Feldman, 1980). Again we refer to the Feldman continuum of behaviors between the universal creativity of childhood and the revolutionary creativity of extraordinary adults, in which a shift in adaptation occurs at level 5. Up to this stage, earlier forms of creativity require the individual to adapt to the field, mastering what is known. At level 5 (of 7), *Producing Information*, the world begins to adapt a bit to the individual (Cohen, 1989a). Tiffany King, 15 and a gifted writer, whose essay "Being a Writer" appears on p. 3 of this journal, is clearly moving towards the more mature levels of creativity as she works at her craft and begins to produce at the edges of the field of writing, with the field beginning to adapt a bit to her (as I did — see Tactics, p. 4). The paradox lies in keeping the creative child alive in the adult, a phenomenon that must be nurtured to succeed.

In classrooms or homes, this paradox implies providing an environment in which it is safe to take risks, make mistakes, "be a kid." It means taking young children's interest passions seriously and supporting them in a responsive environment (Clark, 1992), being careful not to channel or take too much control (Cohen, 1987b; Cohen, Burgess & Busick, 1990). It means allowing young people to construct important connections for themselves so that the courage to create remains in later years. It also means supporting children to master domains at high levels (Cohen, 1987a), which brings us to the next paradox.

Knowledge and Ignorance

At mature levels of creativity, the individual is very knowledgeable

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in a particular area, with sufficient mastery to enable recognition of problems or gaps at the "edges" of the field (Csikszentmihalyi, 1988; Feldman, 1982). As Gruber (1989, p. 15) stated, "It is safe to say that *no case* of early achievement occurs without a long apprenticeship." To ensure that an individual masters a discipline, resulting in later expressions of high levels of talent, early passions must be supported by a social and physical environment (Csikszentmihalyi, Rathunde, & Whalen, 1993; Deci, 1992). Chance, opportunity, luck and serendipity play a part in fruition as well (Tannenbaum, 1983, 1991).

Two related paradoxes are involved here: play and work, and ease and effort. In Ben's case, between the ages of 3 1/2 and 4, a great part of his play was related to volcanoes. This was also his work. He worked hard to learn all he could, but he learned with amazing ease as it was his passion. For highly creative adults, work and play become entwined. There is an enormous investment of effort and hard work, but it is pleasurable for them. "Flow" (Csikszentmihalyi, 1988), may even feel easy, as the creator challenges him or herself to new possibilities or to the mastery of a skill.

Feldman (1980) views creativity as occurring when an individual has idiosyncratic mastery of a domain. This idiosyncratic mastery requires not only knowledge, but also awareness of ignorance — knowing what one does not know coupled with the purpose to seek out what is missing or not understood (Cohen, in press; Kerwin, 1986, 1992). It also requires tolerance of ambiguity and living with uncertainty. Take Botany Bill, for example.

"Botany Bill," as we called him, was a family friend when I was a child. An energetic man approaching his 50s, Bill earned his name by his love for and knowledge about living things. When he visited, we took wonderful walks to learn about the many varieties of mushrooms, ferns, frogs or trees. He introduced us to exotic-sounding Latin names such as *polygala* (a small orchid-like blossom), *amanita muscaria* (a very poisonous mushroom) or *pseudopodia* (false foot, in certain clams and mosses), as well as more common names like *whorled loostrife* and *butterfly weed*, words that rolled off my tongue and still conjure strong memories and feelings.

What was most striking about Botany Bill, though, was not his knowledge but his never-ending curiosity. His passion and his purpose were learning about this phenomenal world. He was like a little kid, puzzling about everything around him, reveling in his ignorance about all the things he could not explain.

The more we know, the more we understand how little we know. The duality of knowledge and ignorance — the transformation of one to the other as a constant and recursive cycle, is another paradox of creativity (Cohen, in press). The offspring of this paradox are curiosity and imagination. It is curiosity that brings clarity to confusion, insight to puzzlement. Curiosity is the source of creativity, found in all young children as they investigate their worlds and then make their mark (Carini, 1995; Cohen, 1988). It can lead to creativity and inventiveness in adulthood, as it did for Bill who, as a chemist, invented new types of glues. And it is imagination that fuels the free romping cycles of mental play which can lead to new possibilities.

Unfortunately though, all too often this universal creativity along with its openness to the unknown and tolerance of ambiguity are deformed by society and schooling when they should be enhanced and protected (Piaget, 1970; 1981). In the home and classroom, focusing on what isn't known as well as what is, is essential. In school, curriculum can be organized around open-ended themes, topics and problems. To avoid power games and genuinely engage students in what is not known, we can ask questions for which we do not have the answers. As Costa (1991) says, "intelligent behavior is what you do when you don't have the answers." Our own ignorance can be a model! For instance, when children ask questions we cannot answer, we can admit not knowing and together seek answers. It's freeing to the perfectionists among us and makes learning more real for us all. And, like Botany Bill, each day we can model curiosity about the world we live in!

At the same time, we must encourage practice and effort. Many able children expect things to be easy and effortless, and it is good to point out to them that great scientists or mathematicians do not become revered without lots of hard work, and that great musicians or artists spend hours honing their skills. Our young writer

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Tiffany appears to have grasped this effort aspect, considering the vast amounts of time she spends on both her writing and swimming. But also, she is motivated to create by internal demands. Tiffany *must* write.

Internal and External

Creativity involves both internal and external demands. Yet demanding it seems to distort it. Amabile (1983; Hennessey & Amabile, 1988) for example, found that when creative efforts were rewarded with prizes or praise, students became less creative. Intrinsic motivation was found to be the best motivator. Curiosity at a profound internal level or an intrinsic puzzlement that must be solved for self-regulation and self-fulfillment were found to be the best motivators.

Externals certainly play their part, too. One young girl, put into a new and limited environment, created houses, boats, and tiny people out of the few leaves and twigs she found to play with, the environmental externals that stimulated her creative imagination. External constrictions also play key roles. Consider a landscape architect who must be aware of the surrounding hills, the shadows cast by clouds, climate, native vegetation, relationships to buildings, maintenance, costs and time factors in designing a garden (Cohen, 1993).

The message for teachers and parents, then, is to avoid extrinsic rewards which can damage intrinsic creative impulses. Genuine interest truly surpasses an offer of money or casual praise for work well done. If a product is particularly good, a vibrant painting by a 6 year old, for example, describing for the child how the colors make us feel, hanging it on the fridge or framing it authenticate the interest. To help develop and enhance reliance on their own intrinsic motivation, we can begin early giving children simple choices and letting them make small decisions for themselves. Later on, discussions of "rules of the game" will help youngsters consider the consequences of their actions and then help them make their own choices and live with those decisions.

Constructive and Destructive

Creativity involves both constructive and destructive aspects, another paradox. Production of a product or idea occurs of course, but along with it comes a willingness to destroy what has been produced.

Destroying what one may have spent hours working on is difficult to consider for many children and adults. Adults may actually inhibit the natural inclination to destroy a creation, but small children have little difficulty stomping on the sand castles they have created, taking apart their elegant Lego structures or a Tinker toy elephant in order to make something else.

Rather than destroying an entire piece of writing or painting, something more akin to a kind of *unzipping* can offer a place to begin. We can *unzip* back to a decision-making node to edit out or change what doesn't work. At that node, a paragraph may have been written that later proves extraneous or a color added that does not relate successfully to the whole; the one can be deleted and the other painted over, leaving the whole intact. But highly creative people may have to destroy to a deeper level. Using the above examples, it may mean keeping the extraneous paragraph and destroying the rest of the story, or repainting the rest of the painting to work with the "incompatible" color. As Gruber (1981) notes, it is not the having of new ideas, but the taking out of the erroneous ones and restructuring the whole as a system that poses the difficulty. Bigger risks are involved.

Risk-Taking and Vulnerability

A characteristic of creative persons is their willingness to take risks when they believe in what they are doing. In a child, it may mean willingness to risk not completing other school work in order to pursue a passion fully or writing a story that is different from the assignment because it *must* be written. It may be taking the risk to destroy much of a work in progress. In Tiffany's case, she risked not conforming to prevailing preferences in dress and schoolyard play choices. In an adult, this may mean painting in a divergent style or promoting a theory that is different from that of the present paradigm. Here we see another paradox related to risk-taking and vulnerability: the paradox of daring to be different, yet wanting and needing social bonds and approval.

Creative individuals, although risk takers, may also be very vulnerable. Tiffany describes her fear of being openly creative, the vulnerable side, simultaneously with her daring to be different. Melissa, one of my 4th-grade students,

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wrote marvelous poetry and stories which were abundant with metaphor and colorful language, expressed with passion and reflective of rich thought. At the same time, her handwriting was weak and her punctuation almost non-existent. Because our only rule for story sharing was never to put anybody down, she risked sharing her writing with the class. I encouraged this inspired young poet, gently helping her with her errors, and deemed her creative writing efforts worthy of an "A." The next year, her teacher's purpose in life seemed to center on perfect punctuation and handwriting, and Melissa received a "D-" for the same subject. When I had her again in 6th grade, Melissa was a sad young person who had lost her voice, feebly producing only a sentence or two. Writing had become too painful; she was too vulnerable. It wasn't until the last six weeks of 6th grade that Melissa found her courage and began to write again, producing a series of delightful leprechaun stories.

If we, as teachers and parents, assume creative students are risk takers without acknowledging vulnerability, we may inadvertently foster a sad and dispirited Melissa rather than her happy, creative and productive counterpart. Tiffany shows her stories only to a very few "safe" friends, as she fears being misunderstood. On the other hand, focusing on the vulnerabilities along with too much coddling and protecting will not encourage the necessary taking of risks to produce something new. Finding the balance that encourages the daring to be different, yet acknowledges vulnerability is an art practiced by parents and teachers alike.

Handle With Care

In life there are two sides to most things, and creativity is no exception. As we have seen, it is in considering the significance of the potential gains and losses that the importance of understanding creativity's inherent paradoxes becomes clear. Always trying to keep in mind what can be gained and lost, we must attend to both dimensions of a paradox in order to foster creativity in our capable children and allow it to flourish as it will. Imagine embracing only one side of the following points, and think what that would mean for a child you know: •Creativity only occurs in geniuses when they produce something revolutionary./ A young child's work is equivalent to that of a recognized artist or musician. •Being educated means finding 'right answers' and gaining facts./Being educated means knowing facts enough to generate new ideas. •Creativity is always driven from within./ Without environmental stimuli or problems to resolve, less is produced.

In looking at only a single aspect of creativity without recognizing its paradox-counterpart, we may be doing damage to a gifted child's creative potential. As Tiffany King so wisely concludes, "creativity should be handled with care by teachers and parents." Understanding and honoring the paradoxes helps us to do so.

References

Amabile, T. (1983). *The social psychology of creativity*. New York: Springer-Verlag.

Carini, P. (1995). *The poets in our lives.* Keynote presentation to the Holmes Group, Washington, DC, January 28.

Clark, B. (1992). *Growing up gifted.* Columbus, OH: Charles Merrill.

Cohen, L. M. (1987a). Maestro Ben. *Gifted Child Today, 10,* (1), 55-57.

Cohen, L. M. (1987b). Indian summer. *Gifted Child Today, 10,* (3), 9-11.

Cohen, L. M. (1988). Developing children's creativity, thinking and interests: Strategies for the district, school, and classroom. *OSSC Bulletin Monograph, 31,*(6), 1-70.

Cohen, L. M. (1989a). A continuum of adaptive creative behaviors. *Creativity Research Journal, 2,* 169-183.

Cohen, L. M. (1989b). Understanding the interests and themes of the very young gifted child. *Gifted Child Today, 12* (4), 6-9.

Cohen, L. M. (1993). *Trajectories of creative lives.* A Gifted Globe: Tenth World Congress on the Education of Gifted and Talented, Toronto, August 9.

Cohen, L. M. (in press). Facilitating the interest themes of young bright children. In J. F. Smutny (Ed.), *Potential and promises: An anthology of readings on young gifted children.* Cresskill, NJ: Hampton Press.

Cohen, L. M., Burgess, A., & Busick, T. (1990). Teaching the gifted kindergarten-primary child in Oregon: Meeting the mandate. *OSSC Bulletin Monograph, 33,* (7 & 8), 1-103.

Cohen, L. M. & Gelbrich, J. (in press). Young chidren's interests: Seeds of adult creativity. In A. S. Fishkin, B. Cramond & P. Olszewski-Kubilius (Eds.), *Current research and methods for studying creativity in youth.* Cresskill, NJ: Hampton Press.

Costa, A. L. (Ed.) (1991). *Developing Minds: A resource book for teaching thinking.* Alexandria, VA: Curriculum Development.

Csikszentmihalyi, M. (1988). The flow experience and its significance for human psychology. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal experience, psychological studies of flow in consciousness* (pp 15-35). New York: Cambridge University Press.

Csikszentmihalyi, M., Rathunde & Whalen (1993) *Talented teen-agers.* New York: Cambridge University Press.

Deci, E. L. (1992). The relation of interest to the motivation of behavior: A self-determination theory

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perspective. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp 43-70). Hillsdale, NJ: Lawrence Erlbaum Associates.

Feldman, D. H. (1980). *Beyond universals in cognitive development.* Norwood, NJ: Ablex.

Feldman, D. H. (1982). A developmental framework for research with gifted children. In D. H. Feldman (Ed.), *Developmental approaches to giftedness and creativity: New directions for child development* (17), (pp. 31-46). San Francisco: Jossey-Bass.

Gruber, H. E. (1973). Courage and cognitive growth in children and scientists. In M. Schwebel, J. Raph (Eds.), *Piaget in the classroom*, (pp. 73-105). New York: Basic Books.

Gruber, H.E. (1981). *Darwin on man: A psychological study of creativity.* Chicago: University of Chicago Press.

Gruber, H. E. (1989). The evolving systems approach to creative work. In D. B. Wallace & H. E. Gruber (Eds.), *Creative people at work* (pp. 3-24). New York: Oxford.

Hennessey, B. A. & Amabile, T. M. (1988). The conditions of creativity. In R. J. Sternberg (Ed.), *The nature of creativity* (pp. 11-38). New York: Cambridge University Press.

Kerwin, A. (1992). *Pilgrim's paradox: Learning through ignorance.* Fifth International Conference on Thinking. Townsville, Australia, July 8.

Piaget, J. (1970). *Science of education and the psychology of the child.* New York: Penguin Books.

Piaget, J. (1981). Creativity: Moving force of society. Appendix to J. M. C. Gallagher & D. K. Reid, *The learning theory of Piaget and Inhelder.* Monterey, CA: Brooks/Cole.

Rothenberg, A. (1979). Creative contradictions. *Psychology Today, 13* (1), 55-60.

Tannenbaum, A. J. (1983). *Gifted children: Psychological and educational perspectives.* New York: MacMillan.

Tannenbaum, A. J. (1991). The social psychology of giftedness. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (pp. 27-44). Boston: Allyn & Bacon.

LeoNora Cohen, Associate Professor at Oregon State University, has been involved in gifted education for over 27 years as a teacher and coordinator of the gifted, president of the Oregon and Pennsylvania associations for the gifted, senior lecturer at University of Melbourne, researcher and parent of two gifted children. Nora is the author of more than 40 publications related to the development of able young people.

Reflections

Continued from page 1

wide variety of issues, and I wrote a series of questions to gather further information about topics that generated the most interest. Students took notes and wrote responses, working in small groups, pairs or by themselves to address the questions. A few students reviewed these responses with me to identify central themes. It was my hope that they would work with me in the actual writing of this article, but then end-of-year projects, Scholastic Aptitude Tests and final exams took precedence. I figured that it was up to me to interpret the data and write, which I tried to do but was not happy with the results. My *Aha!* came in realizing that as much as possible I needed to follow my principles and let the students' work speak for itself. To successfully accomplish this project we had to find a way of working together that reflected all our efforts and accommodated our logistical limitations. What follows is a synthesized selection of the students' reflections and responses to my questions.

What kinds of stress most affect bright kids?

•Self expectations and parental expectations are hard.

•Responsibility in lower level classes. Everyone looks up to you.

•The stress of trying to please everyone and always being perfect.

•The most stressful thing in my life is grades. I work really hard to keep my GPA up.

•Time. I can't even find time to read books that I am interested in for fun.

•Bright kids are involved kids, too. They always have too much going on and want to do more still. This is good, though. Work for all the classes we take is hard to learn and accomplish. Setting aside time and avoiding procrastination is hard and stressful. We feel overwhelmed at times and have to take a break to put things in perspective. Getting good grades, taking advanced classes and living up to your and others' expectations are examples.

•Doing well in college. Money for college. What should my career be?

•I feel the most stress when planning for the future, getting a whole bunch of homework done on the same weekend as the most important cross country meet of the season and proving to myself I am really bright.

What are some of the hardest challenges for bright kids?

•Trying to find a medium between what is too much and what we're really learning. Classes, like what we're in now,

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Reflections

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have been great learning experiences.

- Keeping that standard up.
- Living up to the expectations of the parents and teachers and the effects of not living up to other students' expectations.
- Social life, staying focused, finishing homework, family time and explaining without sounding too smart.

How does being bright affect your relationships with teachers?

- Some teachers understood and gave, for example, outside-of-class activities.
- Some teachers want to put you down and expect a lot.
- Some teachers want everybody to be the same.
- In some classes teachers held you back and said you were wrong if the rest of the class wasn't on that level.
- You are often either a favorite student, or an advanced class is their favorite class.
- We are more open and respectful. They give helpful comments to keep you motivated.

How does being bright affect your relationships with other students?

- There is pressure not to achieve and succeed.
- Depends. Some people bug you about being smart and some don't. People ask you for help and some put you down because you know things easily.
- Cruelty. Prejudice.
- They leave assignments and group projects for you to do because they know you'll finish it.
- You can help them out with work sometimes.
- Depends on the person's attitude. They respect us or think we're too smart.

Given your experiences, in what ways can parents help support bright kids?

- Get parents involved if they aren't [already].
- Talk to your children about what they did during the day.
- Be supportive.
- Let them be normal, expect mistakes. Just because they're smart doesn't mean they're perfect. They're normal kids — let them be and expect them to be normal.
- Get involved with teachers and school.
- Show attention the child may not get at school.
- Accentuate the positive and help with the negative.
- Parents are the basis of a child's growth mentally. The main thing parents can do early on is show them they care and will be supportive through all the child's decisions. They should also read to and with the child and try to get them interested in the outdoors, other children and activities not related to TV. When the child is a teenager, stress starts to mount. If the parent helps with decisions, planning class schedules and picking out colleges it lets the teen relax and have a lot more fun with other activities. All in all, love is the most important factor. If you are there and play a part in their lives all the way through school and beyond, you will have done your best; it comes naturally with time.

What advice would you give to teachers who want to improve school for bright students?

- Don't give them busy work.
- Don't show them off to the rest of the class.
- Give them more difficult assignments in place of easier ones.
- Instead of extra work, a class should offer more variety.
- When I was in grade school I was always ahead of the other kids. I liked it that way and if I didn't know something it scared me and I felt stupid. Now that I am in high school and in advanced classes I'm learning new things every day.
- There must be some advanced classes so we can challenge ourselves. Having everyone at or above your level is helpful. Otherwise, we would lose motivation and interest.
- See each child as a whole person and individual. Bright doesn't only include book smart. Accentuate the positive in everyone. Make sure everyone is always challenged.

When you think about your future, what are you most hopeful about?

- Going to a good college and getting good grades. Being successful and happy.
- Living a happy life.
- Going somewhere. Everything we do is working for that.
- Success, happiness, helping others.

What advice would you give to younger bright kids about how to be successful?

- Always do your best, and if you feel discouraged, remember you're doing your best.
- Take the advanced classes. Always challenge yourself.
- Don't worry about what other people say or do.
- Be normal, have a normal life, be a kid/teenager, whatever you want. But take the opportunities that are open to you. They will open up doors for you later in life and help you today.

A few of the students talked with me later about the relationship between motivation and high expectations. Staying motivated enough to consistently reach high

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Jerry Flack

In Search of Serendipity

Creative Producers

Creative Ventures

On our last journey we examined ways and means to facilitate the expertise of talented and creative youths in a variety of topics and skills. On this voyage we will examine some things parents and teachers can do to help these same young people find ways of channeling their expertise into meaningful products. The key strategy here is to help talented students move from being consumers of information to becoming creative producers of meaningful educational products. The sample ideas may be used in the home, in TAG classrooms or by teachers seeking ways to meet the needs of gifted students in mainstream situations.

There are great editing and publishing possibilities open to gifted students for creative productivity in both regular classrooms and in special programs. Two gifted 7th-grade students in Bridgman, Michigan, created a booklet of summer activities designed to teach basic skills in math, language, social studies and science. Featuring hands-on activities for each day of the summer, the *Bridgman Bigshots Busy Book* was printed and distributed to every student in that middle school on the final day of the school year. The activities were fun yet also reinforced one or more skills or concepts learned in middle school grades. The students, Heather and Max, were given class time in their math, science, reading and social studies to work on their project, regularly consulting teachers about requisite skills and information. The net result was a product that benefited the entire school and was greatly appreciated by students, faculty and the community at large. Thanks to the creative and product-oriented service of two talented young people, students in the community maintained and even sharpened basic skills.

The story of a class of 5th- and 6th-grade gifted students from Joseph G. Wilson Elementary School in The Dalles, Oregon, is featured in *Lives of Promise* (Flack, 1992). Under the direction of their TAG teacher, these students became the most active local historians in their community. They spent a year digging through primary sources in order to write a biography of Joseph G. Wilson, a 19th-century pioneer settler for whom their school was named. Copies of the 20-page biography the students wrote were widely circulated throughout the community and their project saluted by both the local library and the local historical society as a significant contribution to the scholarship of the region. An heir of Joseph Wilson, a California judge, made the trip to Oregon to attend the formal dedication of the students' book and the rededication of the school.

Classroom and school newspapers also provide great opportunities for gifted students to write, edit and manage publications. Even the youngest gifted students can quickly comprehend the generic nature of the newspaper layout: news, features, comics, weather, sports, opinion and advertising. The format is exceptionally versatile, and students, individually or in teams, can create newspapers about any topic of study—inventions, mythology, the study of a state, dinosaurs, Shakespeare, or the Olympics. One 1st-grade teacher in Denver, Colorado engages her class in the fashioning of a newspaper to accompany their reading of Harry Allard's delightful mystery, *Miss Nelson Is Missing*. New computer hardware and software programs make it possible for today's students to realize desktop publications of strikingly professional quality.

Students can produce amazing video productions, such as the one done a few years ago by a team of gifted students from a small high school in Oregon. Working with a filmmaker-in-residence and a claymation expert, these gifted students in a rural and isolated region of eastern Oregon created a superb, highly professional-appearing multimedia product to explain the unique geology of

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Classroom Experts

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their region. The video included helicopter photography, claymation and a script entirely written and narrated by the students.

One junior high science student noted that his classmates were having trouble learning the names of the many muscles in the body. One day, finishing early with the assigned work, he began to play with some lyrics that might serve as a mnemonic tool for his friends. His song, "Our Muscles," is sung to the tune of "My Bonnie Lies Over the Ocean," and begins:

> *My bicep lies over my triceps*
> *My deltoid is next to those two*
> *Trapezius lines up behind them*
> *To hold up my arm right to you.*
> (Flack, 1993, p. 236)

The 13-year-old boy's lyrics were used by his science teacher for many years after they were first written. And, incidentally, that lyricist is now an orthopedic surgeon.

What about zoo stories? Students choose particular zoo animals about which they'd like to know more and plunge in to learn all they can about polar bears, lions or gorillas. Using the writing tool of personification, they then write zoo animal autobiographies which allow them a creative means to share the learning their research has produced. Zack, who decided he wanted to learn more about zebras, began his account as follows:

> *Hi! I am Zaragosa the Zebra. I am a member of the horse family Equidae, and the genus, Equus. I live in grassy areas of Africa. My most striking feature is my pattern of alternating black and white stripes.*
> (Flack, 1993, p. 228)

Of course, these "autobiographical" accounts need not be limited to zoo animals. Students can research and write about rocks and minerals, dinosaurs, the solar system, states, inventions and a host of other topics and themes. When several students work together, a book with 10 to 20 separate stories can be the resulting product.

It is hoped that the models described here offer provocative and inviting suggestions that teachers and parents can share with young people to help them channel their growing knowledge, expertise and enthusiasm into creative products.

REFERENCES

Flack, J.D. (1992). *Lives of promise.* Englewood, CO: Teacher Ideas Press.

Flack, J.D. (1993). *TalentEd.* Englewood, CO: Teacher Ideas Press.

Jerry Flack is a President's Teaching Scholar and Professor of Gifted Education at University of Colorado, Colorado Springs, and author of several books, including ***Inventing, Inventions, and Inventors*** and ***Lives of Promise***.

Reflections

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levels of academic achievement is a constant challenge, and they don't like it when the expectations at school are lower than their own. They feel that for most of them high standards were set originally by their parents but somewhere along the way became internalized. At this point in their academic careers, these students are committed to keeping these standards, which can be hard to do because of the amount of work required, the difference in attitude that separates them from other students and the hard choices to be made about how to spend their time.

Throughout my work with the gifted over the last 19 years, I have found that no matter what area you think you are addressing, emotional issues come up and take over the discussion. I believe it is critical that, as teachers and parents, we help gifted youngsters develop both an understanding about emotional well-being and some strategies for keeping themselves balanced. And, most importantly, we must also be willing to listen to what kids have to say.

Deborah A. Weiner, a school improvement leader, coordinates services for talented and gifted students in McMinnville, Oregon. She has taught primary through university levels and is the author of several publications in gifted education.

Above and Beyond

To Fake... Or Not To Fake

One of the most desirable attributes to be found in adults who work with gifted youngsters is the ability to say "I don't know" without feeling embarrassed or self-conscious. Granted, saying this may be easier when looking up at a tall, older student than down at someone considerably shorter than you are! Nevertheless, it's a good, and often necessary, phrase to have handy when working with high-ability kids.

While teaching gifted 2nd and 3rd graders, I discovered a challenging activity which I thought the kids would enjoy. The task required logical thinking plus a process of elimination to connect characters in scenarios with the attributes that belonged to them. Any erroneous assumption would inevitably lead to an incorrect solution.

Sarah, a particularly clever 8 year old, quickly mastered the first few puzzles. "I love these!" she exclaimed. "But I'd prefer some that are more difficult." So I cheerfully located a much more difficult, 3-D version that required students to link characters with two to three attributes. Unfortunately, I neglected to see how well I could solve such a complex activity first. After Sarah had worked on this one for about an hour, she asked me to check what she'd done so far. With her at my side, I "thought out loud" through the same steps she'd taken, except I got stuck before the point at which she'd stopped working. Although I bravely started over, I couldn't make it past my initial obstacle. Solemnly, Sarah asked, "You really don't know how to do these hard puzzles, do you?"

Several possible responses raced through my mind, most of which favored bluffing or giving excuses for my trouble. Finally, trusting my intuition, I admitted, "You're absolutely right, Sarah. I've never tried to do such a challenging version until just now. I sure hope you'll be able to teach me how to do it once you've mastered the process yourself. And if you need help, I'm happy to arrange a visit with the 6th-grade teacher who's a real champ with these things."

So often, teachers and parents of gifted youngsters experience anxiety as we wonder what these kids will think of us when they discover we don't know everything, or even what we're "spozed to." As long as we're honest about the situation, we can capitalize on this golden opportunity to model that learning is a lifelong process. Perhaps the most important lesson adults and students can learn from each other is that no one can or needs to be perfectly knowledgeable in life — not gifted kids, and not the adults in their lives either.

Susan Winebrenner, from Illinois, presents workshops on a variety of topics, but her first love is teaching gifted children. She is the author of ***Teaching Gifted Kids in the Regular Classroom.***

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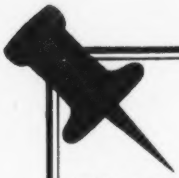

The Bulletin Board

This space is for you!

This section serves parents, teachers and non-profit groups. We will print your announcements as space permits.

FALL CONFERENCES

- Sept. 30, **Gifted Child Society/Montclair State University,** Upper Montclair, NJ. Gina Ginsberg Riggs (201)444-6530.
- Oct. 11-13, **Mississippi Association for Gifted Children,** Biloxi. Carol Paola (601)864-8520.
- Oct. 13-14, **Colorado Association for Gifted and Talented,** Denver. Karen Larsen (303)423-5498.
- Oct. 13-14, **Wisconsin Association for Talented and Gifted,** Milwaukee. Audrey Burkes (608)277-8448.
- Oct. 15-17, **Iowa Talented and Gifted Association,** Waterloo. Steve McCrea (319)266-0537.
- Oct. 19-21, **Advocacy for Gifted and Talented Education in New York State,** Albany. Amy Kargman (718)927-5125.
- Oct. 27-28, **Ohio Association for Gifted Children,** Columbus/Worthington.Diane Burbick (216)297-1436.

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Multi-Cultural Issues in Gifted Education

Guest Editor

C. June Maker

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Advocacy Alert

Continued funding for the Jacob K. Javits Gifted and Talented Students Education Act remains at great risk. Contact your U.S. Senators and Representatives to communicate your strong support for programs for gifted children. ***(Refer to the advocacy letter in the last issue of UOG, May/June, 1995, pp. 17-18.)***

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